

# CRANKING

*The Wessex Stationary Engine Club's Monthly Newsletter*

Feb 2015  
37 years of publication!  
**MUST SEE**  
[www.wessexsec.org](http://www.wessexsec.org)  
**NEW!!!** With forms,  
photos, info, latest  
stuff. Archive.

## From The Sump

Nice to see the days opening out again. Still a bit chilly down the workshop, but it's better every day. Do you have heating in your shed? When I was building my place, I scrounged up a dozen electric tube heaters from an old church, low level stuff to take the edge off the cold space – but I never got around to fitting them, sadly. I've tried various things over the years, but it's a big place full of metal and doesn't really warm through until the middle of May! I've tried an ancient (rewired) two bar electric fire which is as good as anything. The red hot wire glowing away makes you concentrate and I've never had an Unfortunate Occurrence – although there was a cloud of fizzing hot iron once when I blew off a pile of iron filings from a work piece!

I've tried an electric space heater and a fan heater, but it's only spot heating of course – move six feet away and you're cold again. Anyway, in my mind's ear, I can hear the electric meter whirring away.

I've always fought shy of the big paraffin powered blowers as I know they produce a lot of water vapour, not what you need with a lot of old iron lying about. As a dry space, I've been pretty lucky really as it is only a single concrete block wall. But when I built it in 1973, I had the common sense to put in a damp course. I thoroughly recommend it! Spiders everywhere but never a slug or snail – spiders love dry places ....

I'd be interested to hear from others how they tackle the problem – or do your hibernate or just work until you can't feel the spanners ? ;o))

I have no idea what the Executive Committee decided about the percentage calculations I referred to last month – no doubt Eric will bring us up to speed next month.

As we hear from many sources, clubs like ours, formed in the 1970's, are slowly failing. It isn't just engine clubs, I went to a vintage bike event the other day and as the helmets came off, the very great majority were white haired gentlemen and ladies of a Certain Age. At least our engines are affordable at entry level, but if you want an old bike to ride, you'd better have £3-5,000 going spare!

Could Paul Chant contact me please, his HUGE dynamo is now accessible for collection, but I've lost his email address.

## Moving the Metal For sale

**Wolesley** WDL 1.5hp. Completely original and unmolested, mounted on a hefty wooden skid. It needs complete cosmetic restoration but appears to be in good order. Turns over. With starting handle. Needs to be seen. £120.00 ONO. Phone Ken Tredgett 01373 464736 Or email [tredg@talktalk.net](mailto:tredg@talktalk.net)

**Anvil**, mid size, weighs just over 8 stone with leg vice that fits in anvil slot £100.

**Ladder**, aluminium, 18 rung, double extension - will extend to 27 feet. Hardly used. £50.

Both can be collected from me or I can deliver at the Cranmore Sort Out. Contact Robin on 01373- 463526.

**Lister A**, 1925. Single flywheel, on a lister trolley. Full working order. £350.00. Phone 01458 210929

**Petter M**. 1934, Apple top, 4hp. On a trolley driving a generator and complete with Lighting board.

**Ruston Hornsby** 1.5hp. PB6, Choice of two. One on a trolley, t'her not. Never had them running, barn find condition.

**International Harvester Co.** LA engine, needs TLC! No trolley, barn find condition.

**EMCO Lathe**, 5". With milling attachment. Loads of tools and kit, very good condition. All open to offers.

Phone Phil Coombs, Gurney Slade. 01749 841220

**Big slate charging panel** four foot tall, three feet wide, instruments, rheostats etc. All original and unmolested Fed up with falling over it £150 (firm) before I scrap it! Phone Kim Siddorn, below.

Believed **Ruston Hornsby** trolley. Four good wheels, axles and steering head but wood U/S! £80.00 ONO

**Lister L** bottom end, more or less complete timing gears etc £70 ONO. (Bob Alexander, below)

## WANTED

**Lister L type**, fixed head. I need the following parts:- Camshaft gear or complete camshaft, 2 gaskets for above, Magneto drive chain and chain cover. A water pump suitable for circulating water across the screen cooler.

Any of the above would be of great help to restore this very old engine. I'd consider buying a donor engine if necessary. If you can help, phone Bob Alexander 01225 766211. A fuel nozzle for a 3 hp **Petter M**. Phone Roger 01722 416949.

## Suppliers

### Recommended Bearing Supplier – very helpful!

Solent Bearings, Unit 20&21, Test Valley Business Centre, Test Lane, Nursling, Southampton, SO16 9JW  
Phone - 02380 667100. [www.solent-bearings.co.uk](http://www.solent-bearings.co.uk)

Articles, cartoons, photos etc are always very welcome – this is not a one-man band, but an expression of all our thoughts and experience. Submissions should be preferably typed or word-processed or even handwritten, (if brief), - it is the content we're after, not the grammar or spelling, so please don't feel your efforts will be ignored. The editor reserves the right to change, edit, augment or lessen your Deathless Prose and asks all to note that opinions expressed in this newsletter may or may not represent club policy

Phone - 0117 964 6818

J. Kim Siddorn, 9, Durleigh Close, Bristol. BS13 7NQ or by e-mail to [kim.siddorn@blueyonder.co.uk](mailto:kim.siddorn@blueyonder.co.uk).

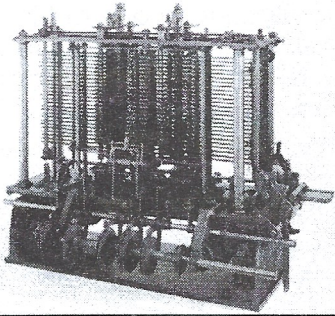


## Featured Engineer Number 8

**Charles Babbage, FRS, 26/12/1791 – 18/10/1871)**

### The Difference Engine

*Father of the computer - From Internet Research*



A **difference engine** is an automatic mechanical calculator designed to tabulate polynomial functions. The name derives from the method of divided differences, a way to interpolate or tabulate functions by using a small set of polynomial coefficients. Most

The above photo shows the first fully-automatic calculating machine that Babbage conceived. The idea of an advanced calculating machine to calculate and print mathematical tables dates to 1812. This machine, conceived by Babbage in 1834, was designed to evaluate any mathematical formula and to have even higher powers of analysis than his original Difference engine of the 1820s. Only this part of the machine was completed before his death in 1871. This is a portion of the mill with a printing mechanism.

mathematical functions commonly used by engineers, scientists and navigators, including logarithmic and trigonometric functions, can be approximated by polynomials, so a difference engine can compute many useful tables of numbers.

The difficulty in producing error-free tables by teams of mathematicians and human "computers" spurred Charles Babbage's desire to build a mechanism to automate the process.

On June 14, 1822, Charles Babbage proposed the use of such a machine in a paper to the Royal Astronomical Society, entitled "Note on the application of machinery to the computation of astronomical and mathematical tables". This machine used the decimal number system and was powered by cranking a handle. The British government was interested, since producing tables was time consuming and expensive and they hoped the difference engine would make the task more economical.

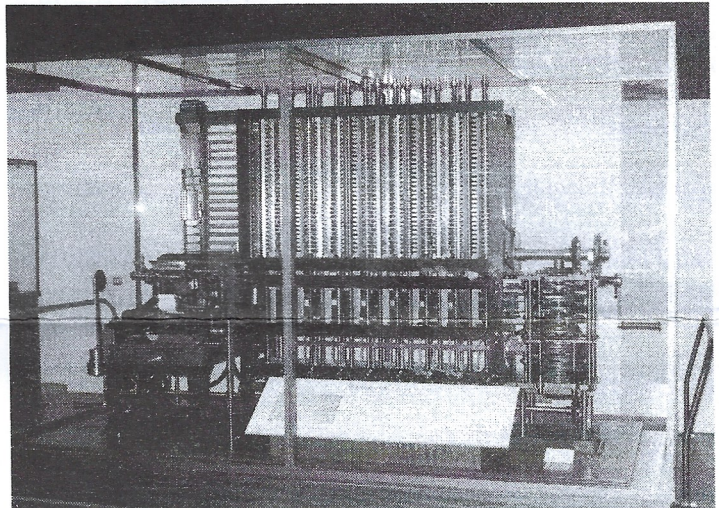
In 1823, the British government gave Babbage £1,700 to start work on the project. Although Babbage's design was technically feasible, no one had built a mechanical device to such exacting standards before, so the engine proved to be much more expensive than anticipated. By the time the government killed the project in 1842, they had given Babbage over £17,000, without receiving a working engine. What Babbage did not, or was unwilling to, recognize was that the government was interested in economically produced tables, not the engine itself. The other issue that undermined the government's confidence in the difference engine was Babbage had moved on to an analytical engine. By developing something better, Babbage had rendered the difference engine useless in the eyes of the government.

Babbage went on to design his much more general analytical engine, but later produced an improved "Difference Engine No. 2" design, between 1847 and 1849. Babbage was able to take advantage of ideas developed for the analytical engine to make the new difference engine calculate more quickly while using fewer parts.<sup>[6]</sup> Inspired by Babbage's difference engine plans, Per Georg Scheutz built several difference engines from 1855 onwards, one of which was sold to the British

government in 1859. Martin Wiberg improved Scheutz's construction but used his device only for producing and publishing printed logarithmic tables.

During the 1980s, Allan Bromley, an associate professor at the University of Sydney, Australia, studied Babbage's original drawings for the Difference and Analytical Engines at the Science Museum library in London. This work led the Science Museum to construct a working difference engine No. 2 from 1989 to 1991, under Doron Swade, the then Curator of Computing. This was to celebrate the 200th anniversary of Babbage's birth in 2001. In 2000, the printer which Babbage originally designed for the difference engine was also completed. The conversion of the original design drawings into drawings suitable for engineering manufacturers' use revealed some minor errors in Babbage's design (possibly introduced as a protection in case the plans were stolen), which had to be corrected. Once completed, both the engine and its printer worked flawlessly, and still do. The difference engine and printer were constructed to tolerances achievable with 19th-century technology, resolving a long-standing debate whether Babbage's design would actually have worked. (One of the reasons formerly advanced for the non-completion of Babbage's engines had been that engineering methods were insufficiently developed in the Victorian era.)

The printer's primary purpose is to produce stereotype plates for use in printing presses, which it does by pressing type into soft plaster to create a flong. Babbage intended that the Engine's results be conveyed directly to mass printing, having recognized that errors in previous tables were not the result of human calculating mistakes but from error in the manual typesetting process. The printer's paper output is mainly a means of checking the Engine's performance.



In addition to funding the construction of the output mechanism for the Science Museum's Difference Engine No. 2, Nathan Myhrvold commissioned the construction of a second complete Difference Engine No. 2, which is currently on exhibit at the Computer History Museum in Mountain View, California.

**Ed says** – My friend John works at the NMSI in London and was intimately involved with the construction of this very complex machine, including going with the team to California in order to install it. He told me that although Victorian tolerances were quite adequate for the job, they had to be right on the nose. There is an enormous amount of inherent friction in the working machine and a room temperature change of only a few degrees would make the difference to being able to hand crank it or not. Oil had to be used very sparingly.



## Calendar of Events

key. CN = Club Night. E = Event

March 7th E. **Vintage, Bygone & Antique Sale** - East Somerset Steam Railway, Cranmore, BA4 4QP  
 March 30th CN **Weapons Of The Past** - Kim Siddorn  
 April 6th **Mells Daffodil Day** - Mells, Nr Frome, Somerset  
 Application form from - Brian Verrall Tel: 01934 743460.  
 April 18<sup>th</sup>. (Sat) E. **Spring Sale**. at Oakley Airfield. HP18 9JX. info: Mrs. Anne Harris 01367 810415  
 April 19th E. **Engine Running Day** - White Horse Country Park, Coach Rd, Westbury, BA13 4LX  
 April 27<sup>th</sup> CN. **My Life as a Rat Catcher** by Pete the Rat  
 May 3rd (Sun) E. **Lambourn Woodlands Country Show**, Contact Stephanie - 01488-683023.  
 May 16/17th E. **Shillingstone Rally**, very popular, book early! Contact S Burden 01747- 822834  
 May 18th E. **Emergency Light Aircraft Around The World** - Dr. Andrew Steel. (*Early because of Bank Holiday*)  
 June 20th - 21st E. **The Wessex Midsummer Vintage Show** - Semington, nr Trowbridge, Wiltshire  
 June 21/22<sup>nd</sup>. E. 31st **1000 Engine Rally**, Astle Park. Cheshire  
 June 29th CN. **My Life In Motor Sport** - Prof Andrew Graves.  
 July 18/19<sup>th</sup>. E. **Much Marcle Steam Rally**. Rye Meadows near Ledbury. HR8 2LX Phone, Mrs Dot Pullen, 01531 633664  
 July 18/19. E. **West Oxen Steam & Vintage Show**, Contact Andy on 01993 771251 or Download Entry Form Via [www.westoxensteam.co.uk](http://www.westoxensteam.co.uk). Venue, Ducklington Nr Witney  
 July 27th CN. **Crank Up** - The Court Hotel With Bread & Cheeses Supper  
 Aug 24th CN. **My Time On Ark Royal** - David Griffiths  
 Sept 28th CN. **Hawker Hunter Fighters** - Grp Cpt John Heron  
 Oct 26<sup>th</sup> CN. **My Life In The Fire Service** - John Bullock  
 Nov 7<sup>th</sup>. E. (Sat) **Autumn Sale**. Oakley Airfield. HP18 9JX. info: Mrs. Anne Harris 01367 810415  
 Nov 30th CN. **Lights At The Court Hotel** - Bring an engine driving dynamo or genny In the afternoon and then model show in the evening with silver soldering demonstration & supper  
 Dec **Christmas Party** - Court Hotel (Date To Be Announced)  
 Dec 27th **No Christmas Crank Up**  
 All the above dates are subject to alteration and changes will be announced in the newsletter.

## Engines Required!

On Sunday 12th April 2015 the NSCTEC (North Staffs and Cheshire traction engine club) are holding "Chuff, Chat and Bang" at our site at Klondyke mill, Draycott in the clay, Staffs DE6 5GZ.

This is an event we used to hold in the early years of the club and as we are over 50 years old we thought it was time to reintroduce it.

It is a one day, informal event where owners of any sort of stationary engine are free to come along with their engine and have a day's play with like minded people at our site. There will be plenty to see and people to chat with There is no formal booking, just feel free to turn up as you wish.

There is plenty of room and refreshments will be available throughout the day. Feel free to contact me if you need anymore information,

## Social News

*From the local Wells newspaper-*

Love was in the air for Katy Uphill and Kevin House of West Pennard last week. Dairy farmer and cider maker Kevin pooped the question in one of his apple orchards as the sun set behind Glastonbury Tor. He even went down on one knee..and Katy said "Yes". Many congratulations and best wishes to them both from the Wessex Stationary Engine Club.

*A letter from Jeremy Adams. Feb 2015*

Like many others, my engine interest started with a Lister D in a hedge in Cornwall, brought home and restored, I still have it, and have bought and sold several engines since. I moved from Bath to Taunton 24 years ago and its just too far to attend club nights, I also resigned from the club committee at that time. As its now time to elect the committee once again, and am amazed how many people who worked for the club in various duties when I left, are still their doing their bit 24 years later. Please join the committee if you can, and give some of the stalwarts a break ! It's a good club, I have made a lot of friends through it. In the January newsletter, Mary Butler remembered an article I wrote about the workings of Hydraulic Ram Pumps, I remember writing it Mary.

Sadly I have decided to give up engine rallying this year as I have Parkinson's disease and this has slowed me up somewhat. Its a bit of a struggle dragging engine, pump, gas bottle etc about. So watch this space, as I shall be selling the few engines I still have later in the year, except for the little Centaur gas engine I built years ago.

Two of my favorite rallies were the club ones held at Cheddar Football ground, and the Bristol Docks industrial museum. I also ran my own mini rally under the Clubs name at Wellow, just south of Bath for a few years. At this last one, the only source of water was a tap in the Gents, and it took Mike Cannon most of the morning to fill his huge cooling tank to a point where the top pipes were covered to allow circulation.

With my very best wishes to the Club and its members from *Jeremy Adams*.

## Chairman's Report

Hello every one. It's a year ago now that I took over from Brian, and I can tell you all it ain't been a walk in the park, but nothing worth doing is ever easy. As you will see we now have a full calendar of events with other being planed for you all, today I have been to see if we can go back to Nunney Catch for a crank up, I did not get a "No" so I am now waiting for a phone call from the owners to say yay or nay.

The meeting on Monday the 26th of January at the Court Hotel was not too well attended, this I guess was due to you not having a calendar of events before Christmas.



We had good evening, most of the members that came along already knew that some of me marbles were missing, but by the end of the evening they were sure that all of them were lost. I gave a Talk, "Strange things and strange stories", mostly about UFO's and it was all totally true.

Now it was at this evening meeting that Wendy asked if I could find someone to become NEWS LETTER DISTRIBUTOR, Wendy has two jobs and this is too much and from March onwards I will need someone to take on this job.

It entails putting the newsletter in envelopes attaching address labels and stamps (all supplied by the club) and posting them. If you think you could do this job for the club, please give me a ring 01225 754374. It really is an important job!

Keith Nash has again spent time in hospital and very unwell. I know all of you would along with me want to wish Keith a speedy recovery and get well soon,

It came as a shock to receive a letter from Kim resigning from the Executive Committee. It is with sincere regret that I tell you this as I have valued Kim's input over the years even before I became Chairman. I would like to thank Kim for his recent action in being able to lower the club's insurance premium, the second time he has saved the club substantial sums of money with its insurance business. I sincerely hope that Kim may reconsider or after a break may come back and join us once again on the committee of the Wessex Stationary Engine Club.

### Fifty Sheds Of Grey

We tried various positions – round the back, on the side, up against a wall.

But in the end we came to the conclusion the bottom of the garden was the only place for a good shed.

She stood before me, trembling in my shed.

"I'm yours for the night," she gasped, "You can do whatever you want with me." So I took her to B&Q

She knelt before me on the shed floor and tugged gently at first, then harder until finally it came. I moaned with pleasure. Now for the other boot.

Ever since she read THAT book, I've had to buy all kinds of ropes, chains and shackles. She still manages to get into the shed, though.

"Put on this rubber suit and mask," I instructed, calmly.

"Mmmm, kinky!" she purred.

"Yes," I said, "You can't be too careful with all that asbestos in the shed roof."

"I'm a very naughty girl," she said, biting her lip. "I need to be punished."

So I invited my mum to stay for the weekend

"Harder!" she cried, gripping the workbench tightly.

"Harder!"

"Okay," I said. "What's the gross national product of Nicaragua?"

I lay back exhausted, gazing happily out of the shed window. Despite my concerns about my inexperience, my rhubarb had come up a treat.

"Are you sure you can take the pain?" she demanded, brandishing stilettos.

"I think so," I gulped.

"Here we go, then," she said, and showed me the receipt.

"Hurt me!" she begged, raising her skirt as she bent over my workbench.

"Very well," I replied. "You've got fat ankles and no dress sense."

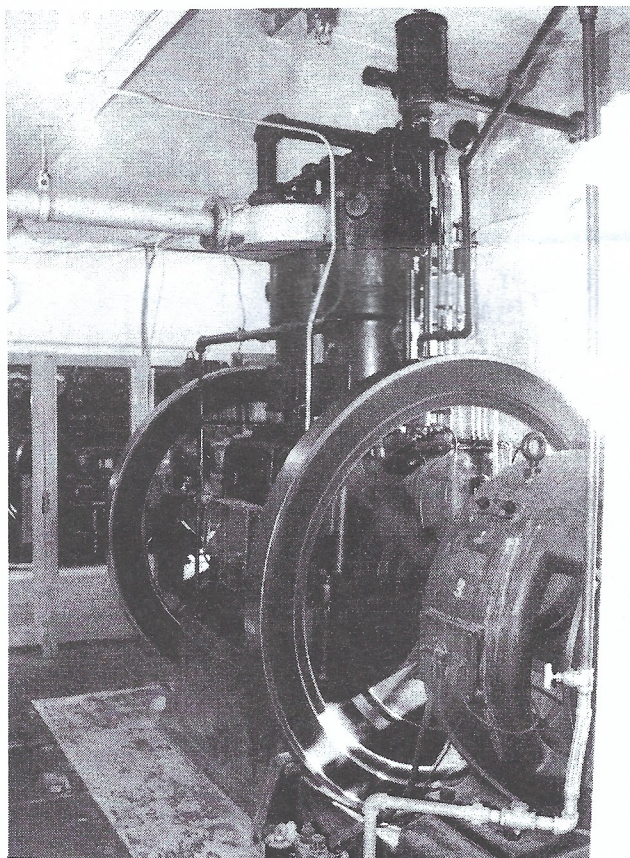
"Are you sure you want this?" I asked.

"When I'm done, you won't be able to sit down for weeks." She nodded.

"Okay," I said, putting the three-piece lounge suite on eBay.

"Punish me!" she cried. "Make me suffer like only a real man can!"

"Very well," I replied, and left the toilet seat up.



Fairbanks-Morse twin at the Mount Wilson Observatory, California..