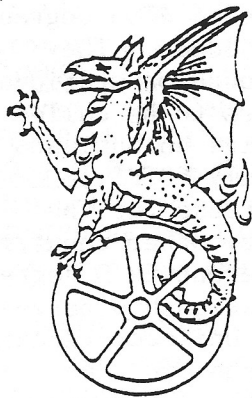


WESSEX STATIONARY ENGINE CLUB



NEWSLETTER

MARCH 1994

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ALL SCREWED UP.

During the 1960's, I was returning from working in Scandinavia and on changing flights at Copenhagen, found myself sitting next to a young American girl who was on a "whistle-stop" tour of Europe. Britain was her next stop. She was reading a book "Europe in 12 days with a rucksack" or something similar and the first line of the chapter on the U.K. read "The British monetary system is a pestilence...." That of course was in the days before decimalisation and the same phrase could hold true in respect of our diversity of screw heads and thread systems.

At some time or another we have all been driven to near distraction trying to find a nut, bolt or screw to match a mating part to get that special restoration just right. In the early days of the industrial revolution, engineers made screwed parts around whatever diameter the component ended up. They also used whatever pitch they fancied at the time and made the next part to suit. The greatest deciding factor was the lathe on which the thread was cut, there was simply no standardisation, a similar thread cut on the lathe next door just would not fit. One man did more than anyone else to achieve a standard was Sir Joseph Whitworth (1803-1887). Whitworth had trained under another early great engineer, Henry Maudslay, who had brought about standardisation in his own factory and was responsible for the micrometer as we know it today. Whitworth's machine tools became famous for their accuracy and standards of precision but despite this, the Whitworth standard took a long time to filter down through the industry from 1841 when it was first set up. Whitworth defined standard diameters, pitches and thread forms. To complement these, he also standardised the hex, head size, albeit to a seemingly complicated formula'. and this eventually became known as Whitworth or British Standard Whit.

With the advent of the automobile industry and mass production methods, to say nothing of higher rotational and road speeds, it became necessary to evolve a finer thread (more threads per inch) to better withstand vibrational forces. This was known as Auto or Autowhit, later to be standardised as B.S.F. (British Standard Fine). The hex, head size was made smaller than the B.S.W. for better access. Later, in 1942, the size of the B.S.W. head was reduced to that of the B.S.F. to help economise on precious war time steel supplies. This explains why a B.S.F. spanner is often shown as one size down on a Whit and why some apparently Whit, size spanners will not fit allegedly Whit. size nuts.

Other branches of the engineering industry soon developed thread systems to suit their own particular needs. Threads for iron pipes, for example, needed to be fine in relation to the diameter; a Whit. coarse thread would seriously weaken or even break through the wall of the pipe. Hence the B.S.P. thread was developed in the same logical way as the Whitworth; it was even more comprehensible to the layman, especially as it came in two types, parallel and tapered. In this case the nominal size of the thread refers to the bore of the tube as pipes are sized by the bore in the trade in order to calculate capacity or flow rate. This is the thread we find on our engines on exhaust pipes, water tank fittings, oilers etc. It is often referred to as Gas Thread, although early on in the history of the gas industry yet another thread existed which was used for gas burners, brass tubing, jets and general gas work well into the 20th century. Whatever the diameter, this thread had 26 TPI and is known as the Brass thread even though there is no British Standard number for it and its origin is obscure.

CONTD.

The electrical and instrument engineering industry also saw a need for its own thread and thus the B.A. or British Association thread was proposed as early as 1884 and was finally adopted by the industry in 1903. In our hobby, this thread is mainly found on magnetos and electric motors where a thread dia. below $\frac{1}{4}$ " is required. To add to the confusion, the B.A. sizes start at OBA around $\frac{1}{4}$ " and go down to 22BA at about 0.08" with an angle of 47.5 degrees.

The bicycle and the motorcycle industry which it spawned, had their own ideas. They settled for the B.S.C. or cycle thread, very fine, mainly 26TPI and rarely found on stationary engines. In 1912 a special series of threads was established for model makers to be called Model Engineers Thread or ME. These may occasionally be encountered by engine enthusiasts on small power engines originating from early home workshops. These are mainly 60TPI.

Some very early American stationary engines appear to have Whitworth threads but the American standard threads ANC and ANF were adopted as a recognised standard by other countries in 1949. The ANC is a similar thread to Whit. but beware, the angle is different by 5 degrees and only sizes below $\frac{7}{16}$ " are interchangeable. Due mainly to the close relationship between the U.S. and the UK motor industries, these threads were standardised as the Unified Standard Coarse and Unified Standard Fine, the latter does not interchange with any other in the earlier UK system and is common on most motorcars up to the late 1970's. Both systems measure spanner sizes across the flats of the hexagon so for example, a $\frac{3}{4}$ " threaded component would need a spanner of $\frac{7}{16}$ ".

Finally, we have the now almost universally accepted and certainly in my opinion, the best system for everyday practical working, the Metric system. This thread will be of interest mainly to enthusiasts of magnetos, as the Bosch and its derivatives use these threads. It is also the thread used by Yanmar, Kubota, Deutz, Bernard - and Japy Freres! to name but a few. In the early days, even though the metric diameters were standard, individual countries had their own interpretation of forms and pitches. Hence French metric would not fit German and neither would fit Swiss etc. The system was organised at an International Congress in Zurich in 1898 and finally standardised as the ISO system in 1943. It is in two types, coarse and fine but the coarse is more commonly found. Part of its simplicity is that if one subtracts the pitch from the nominal diameter, it gives the preferred tapping size. Hopefully soon, the USA and the rest of the world will adopt the system so that we only need one set of taps and dies in our workshop and one set of spanners for everything....and an adjustable for everything else!

ERIC G. BRAIN.

FOR SALE - Robin 12' - 4 berth caravan, one double, two bunk beds. Gas/240v Fridge, Gas Cooker, 12v lighting, partly wired for 240v (Needs fuse box). Good awning with built in loo tent. Porta Potti loo. Various other bits and pieces. Good Condition a little bit of wood rot at bottom of front window. £400 ono. Also Bulldog caravan towing stabilizer complete. Contact Chris Arnold 0225 - 866565.

FOR SALE - 5hp Petter 'S' type - made in 1933 Engine No. 210355 - Class 2 condition. Please contact P. Thornton-Evison for further details Tel. 0235 769441.

FOR SALE - 2 - Lister 'D's for spares, one sideshaft type - £15 per pair.

1 - Lister 'D' pet/paraffin, needs repaint only - £50.

1 - Wolseley WD1 smooth pot, no silencer needs repaint - £75.

1 - Villiers, water cooled, incomplete, (no tank, no handle) - £20.

1 - Dentists air compressor complete with tank (old) - £30.

1 - 13hp 3 phase mains motor - £15.

1 - 10 KVA 115 volt Alternator - can be used as single phase 240v at approx.

7 KVA -50.

12hp engine will light up the street!!

120 volt 60amp Charser (Yes 120v) - £25.

1 - Lister 'A' 3hp complete - £100.

For all the above items contact - Ivor Yeo, East Harptree. Tel: 0761 - 221604

FOR SALE - Stuart Turner 1½hp 2 stroke Generating Set. Runs well but needs tidying - £80 ono

Stuart Turner Electric Water Pump $\frac{3}{4}$ " bore 750gph - Runs well - £20 ono.

Two gasket sets for SL series Lister Diesel - £10

12v Battery - Heavy Duty - £15 ono. 5ft Strip Light - £5 ono.

Adjustable engine mounts, pair - £5.ono. Roof Rack - £5 ono.

Set of 4 - 10" wheels, solid rubber rims, $\frac{3}{4}$ centres very strong - £15 ono.

For all eight items above Tel: 0761 452565 (Roger).

FOR SALE - Wolseley WD engine on wheels, in need of restoration - £55.

Secondhand spares for Lister Well Pump - £20.

JAP engine and water pump unit - £35. Godwin self oiling water pump for restoration, with a working single phase electric motor - £60.

Water pump for restoration, make not known, but it has a flag logo - £50.

Room needed - so must be sold - Ring Ted on 0749 840322 (Oakhill).

WELCOME TO NEW MEMBERS - Mr. A. Trim of Wincanton, Mr. A. Holloway, from Fawley, Hants, Mr. G. Holloway, Holbury and Mr. R. Hall also from Holbury, Hants.

PROGRAMME CHANGE.

As you will see from your programme of events in April we had proposed to arrange a canal trip from Bradford-on-Avon, but unfortunately we cannot get this tied up for a Sunday afternoon. So we have cancelled this idea and we have now organised a trip to the Weston Zoyland Pumping Station for SUNDAY AFTERNOON - APRIL 10TH. Its a get yourself there trip, and we all meet at approx. 2 o'clock. Entry for our club is free to members.

WANTED Fuel Tank and piston rings for Lister 'L' type pet/paraffin hopper cooled engine 5hp. Magneto for Petter 'M' 3hp tank cooled.

For Both of the above contact - Brian Lovell 0460 53846 (Ilminster).

WANTED For ex GPO Villiers Swan 24 volt generating set - two pin electric cable plugs.

Contact Ted on Oakhill 0749 840322.

WANTED By the Club a sportsfield white lining machine to help mark out rally field - Does anyone have one that we can loan, beg or borrow for the weekend - Contact any Committee member.

CONGRATULATIONS - This month sees the 20th Anniversary of The Stationary Engine magazine, our congratulations go out to them for continuing to produce a first class specialist magazine that supplies its readers with so much valued information on their beloved hobby. The magazine has in fact become for many the enginemans encyclopedia, very much coveted, faithfully collected and added to each month as the next issue comes through our letter boxes. Best wishes to the producers and heres looking forward to the next 20 years.

Whilst on the subject of the Stationary Engine magazine, I thought it was about time I had a look back through some of my earlier issues and I started to read issue No.29 from way back in 1976 and it brought back memories of how I came to subscribe to the magazine in the first place. I was at the Doddington House Rally in 1977 with my Lister 'D' type engine full of pride and joy but not really knowing too much about the engine and firm that made it. A very knowledgeable chap stopped to talk about it, and from him a wealth of information came forth, and he asked me if I subscribed to the 'Stationary Engine', well I never knew that such a magazine existed and I was soon filled in with all the information by his good lady wife who at the time I thought was just being very tollerant and polite as her husband did spend rather alot of time chatting and perhaps neglecting some of the things she would like to see. It was of course David & Doreen Edgington, a terrific team to whom we are all indebted. Whilst thumbing on through the pages of No.29 an article headed 'A first attempt at engine restoration' made very interesting reading as a young Yorkshireman described his prize find on a friends farm in the Yorkshire Dales. He had found a 4hp open crank Bamford, his first engine and he had it transported all the way down to Somerset, in his words 'the peace of Welton was shattered when the engine sprang back into life with the absence of a silencer' it probably sounded like gunfire on Salisbury Plain - if you haven't guessed the engine owner by now it was past WSEC chairman and president Tom Randall. Moving on through the pages an interesting article from Wiltshire told of an 8hp hot bulb Blackstone's restoration, the engine being purchased for £50, can anyone imagine that, but all those years ago it would have been like taking out a second mortgage to make such a purchase. The engine's new home was to be at Market Lavington and again if you haven't guessed it was John Kyte who with the help of Don Baker assisted John with the restoration. The Doddington Rally was also to be my introduction and joining of the Wessex Stationary Engine Club, it was then only a few months old and the club officers were busy canvassing at this rally for more members, no doubt quite a few joined and looking back over the years what a wonderful experience it has been. The friendships that were then struck and many more since have lasted all these years and will without doubt continue for many more. ROB.

January 31st - Talk on Westonzoyland Pumping Station.

Our vice-chairman Eric Gay opened the meeting in the absense of our chairman Brian, being indisposed. Ian Miles and Keith Evans came to give us a slide show and talk on this local Somerset pumping station. The club room was full, so we were very busy giving out newsletters and of course taking subscriptions.

The first half of the evening was taken up by giving us a general idea of the Somerset levels and the ways that they redirected rivers etc. This part of the talk was given by Ian Miles and I cannot elaborate very much because it was a very in depth talk with slides and although very interesting it was rather too much for me to take in or take notes for this report.

We had a break just after nine o'clock to refill our glasses and have our monthly raffle. The lucky winners were Tony Andrews - a wire stripper, Eric Brain - a pen knife and Ivor Yeofour cans of beer. The second half was then taken over by Keith Evans and he had slides of the engines seen in theirs and other pumping stations in the area. Westonzoyland being the oldest and housing an 1861 Easton & Amos drainage machine, fully restored by volunteer labour. There are many other attractions on the site including a small forge, a works tramway, also many steam exhibits, illustrating some of our industrial heritage. A very good evening this turned out to be with plenty of information. We were handed a leaflet with the 1994 dates of opening and in steam days. Admission to the pumping station is £2 for adults, OAP/UB40's £1.50, Children £1. Family Rate (2 adults with children) £5 - its open from 2pm to 5pm.

The rally committee are getting on well with the organisation of this event. It has been decided and agreed by the general committee that the stationary engines this year will not be put into pens but situated around the perimeter of the field with camping well behind, thus a need for a white lining machine to mark out individual camping areas. We shall also be going back to doing our own barbeque again.

The club shop will be up and running again, so if anyone has any saleable items, bric-a-brac good jumble etc. please bring to the rally or give to any committee member. It is also hoped to have a good selection of club goods on sale e.g. sweatshirts, note pads, key fobs etc., so if your stuck for Fathers Day which is on the Sunday come along and have a look.

EVENTS DIARY FOR 1994.

- APRIL 3/4th - Westonzoyland Pumping Station - Open and in steam.
- APRIL 3/4th - Dart Valley Railway, Buckfastleigh, South Devon. Tel: 0364 642338.
- APRIL 10th - Beds & Bucks Bring & Buy Sale - Bromham Mill, Bromham, Nr. Bedford.
9am to 1pm - No advance booking required.
- APRIL 23/24th - Creech St. Michael Rally - St./Engines - Jane Stuckey, 6 Creechwood Terr., Creech St. Michael, Taunton. TA3 5EE. Tel: 0823 443877.
- APR. 30/MAY 1/2 - Abbey Hill Steam Rally, Yeovil Showground. St./Engines - Les Simpson, 42 Little Sammons, Chilthorne Damer, Somerset. Tel: 0460 841052.
- APR. 30/MAY 1/2 - Chase Hospital Steam Rally, East Worldham, Nr. Alton, Hants. (On B3004).
Enquiries + Tel: 0420 477483 or 0420 474298.
- MAY 1st - Border Counties Vintage Rally, Speech House, Coleford, Glos. Contact - Mr. K. Sargent, 18 Tufthorne Close, Coleford, Glos.
- MAY 1/2nd - Mid Devon Tractor, Engine & Machinery Group Rally at Crediton, Devon.
Contact - N.W. Lock, Brookfield, Dolton, Winkleigh, Devon. Tel: 08054 540.
- MAY 7th (Sat) - Annual Vintage Collective Spring Sale, Thruxton Circuit, Nr. Andover, Hants
Contact - Evans & Partridge - 0264 810702.
- MAY 8th - Hazelbury Bryan Rally. Contact - Dickie Plummer 0258 817597.
- MAY 8th - National Waterways Museum, Llanthony Warehouse, Gloucester Docks.
Contact Trevor Hill 0452 525578.
- MAY 7/8th - Andover Vintage Club Rally at Snow's Farm, Picket Twenty, Andover, Hants.
Contact John Gayton Tel: Andover 365920.
- MAY 14/15th - Castle Combe Vintage Rally, held at the Racing Circuit, Castle Combe.
Contact Alan Doddington, 35 Curtis Orchard, Broughton Gifford, Melksham.
- MAY 14/15th - Rainbow Transport Show at Shaftsbury Park, Newport, Gwent. Contact Robin Lambert, 15 Beechwood Avenue, Frome, BA11 2AX Tel: 0373 463526.
- MAY 20/21/22nd - Dorset Spring Fair, South Down, Tarrant Hinton, Dorset. Contact Michael Oliver - 0258 860361.
- MAY 22nd - Mendips Tor, Collet Park, Shepton Mallet. St./Engine entry forms from Mr. L. Trevorrow, "Glencairn", 51 Waterloo Road, Shepton Mallet, Somerset.
Tel: 0749 345347.
- MAY 28/29/30th - Selwood Steam & Vintage Rally, Longleat House, Nr. Warminster, Wilts.
St/Engines - Mr. S. Francis, 45 Stonebridge Drive, Frome, Som. BA11 2TW.
- JUNE 4/5th - Lister Petter Rally at Nibley House Farm, Nr. Dursely, Glos. St/Engines - Mrs. J. Wytchard, 14 The Street, North Nibley, Dursley. Tel: 0453 546024.
- JUNE 5th - Ivybridge Vintage Rally, Filham Park, Ivybridge, Devon. Details from Event Organiser, Grendon, Westover Lane, Ivybridge, Devon. BPL21 9MJ.
- JUNE 5th - Huckyduck Carnival Club Annual Fun Day at Highbury Playing Fields, Coleford Nr. Frome. Engines wanted - No Forms just turn up and have a nice day.
- JUNE 11th - Bradford-on-Avon Hospital Fete at 2.00pm Contact Tony Jones on 0373 465189 after 7.00pm or write to 121 Marston Lane, Frome, Somerset BA11 4DW.
- JUNE 12th - Somerset Vintage Farming Society Rally at the Junction 21 - M5 on the A370 at Hewish. St/Engines - Mr. I.J. Hawkins, 46 Tunstall Close, Stoke Bishop, Bristol BS9 1HR Tel: 0272 686304.
- JUNE 11/12th - West Dorset Vintage Tractor & Engine Rally, Gore Cross, Bridport. Contact The Secretary, Listers, 2 Gatcombe Close, Fordington Fields, Dorchester, Dorset. DT1 2AW Tel: 0305 265309.
- JUNE 11/12th - Wiltshire Agricultural Preservation Group Rally at Margreen Farm, Burbage, Nr. Marlborough, Wilts. St/Engines - Mr. Jamie Coates, 5 Stokes Close, Bishops Cannings, Devizes, Wilts. Tel: 0380 725371.
- JUNE 18/19th - Wessex Annual Rally, Semington, Nr. Trowbridge, Wilts. St/Engines - E.J. Routley, 23 Sunnymead, Little London, Oakhill, Nr. Bath BA3 5AX.
Tel: 0749 840322.
- SEPTEMBER 25th - Full Quart Crank-Up, Hewish, Nr. Weston-super-mare. Would last years exhibitors who wish to attend this year please contact Roy Cox.
Tel: 0934 419826.