

CRANKING

November
2008
Thirty first year
of publication
www.wessex-sec.co.uk

The Wessex Stationary Engine Club's monthly newsletter

From the Sump

There was a lively discussion at the Committee meeting the other evening & a rally for 2009 was given the go ahead with a budget of £500. Eric Gay who has been looking into prices etc was optimistic that the event could be run for this meagre sum, one that is well within our financial means as a club. What we need now is support from the membership in physical form & we could do with perhaps ten fairly fit people who can run out ropes, bang in stakes and generally turn a grassy field into a rally site! The date we are currently looking at is the weekend of 20&21st June 2009 & it would be a boost for Eric if anyone prepared to help could phone him on 01225 754374 & say so. The location will be at Semington, a venue fondly remembered by those members who have been in the club for some years. More news as it happens.

Our new third party liability insurance now covers us for a much wider range of driven machinery including drag saws etc. Common sense demands that working machinery like this will require a separate demonstration area at an event with a greater separation from the onlooker than we are normally used to. Therefore, it will need forward planning and we politely ask anyone that intends bringing an exhibit of this nature to a Wessex-supported show to let us know in advance. Naturally, we'd be keen to see some interesting "yesterday's farming" exhibits of this nature at the annual rally – the more the merrier!

Junior Members are insured to exhibit in their own right as long as a parent, guardian or other adult that is designated by their parent or guardian as being their Carer for the duration of the event accompanies them at all times. We are also covered for Employer's and Product liability should we ever need it.

I notice that the "Moving the Metal" column has gone rather quiet & this surprises me a bit – I'd have thought that this was the time of year when we'd want to get some things shifted that we are never going to get around to. Go on, have a look in the workshop & let me have the details.

Moving the Metal For sale

Lister D, chain drive magneto, tidy original condition. Four wheel trolley with rubber wheels. £70 or near offer.

Wico A series magneto. V good condition with impulse unit. £35

Vauxhall Vectra. 120K, top of the range, excellent order. Sold with new MOT at time of sale. £890 ono

All above, phone Eric Gay - 01225 754374

BSA Winged Wheel, Circa 1052. Fitted to ladies dropped tube frame. Barn fresh, 90% complete, magneto reworked. Needs TLC – offers invited.

Phone Peter Stacey on 01373 47328

WANTED - Starting Handle for Bamford 9hp crank 2 5/8" Please ring Ron on 01749 870756

WANTED Triumph twin WW2 genny or parts.

"Old Glory". Stack a foot high 80's & 90's – tenner.

"Vapourising" small stack of old 'uns - £1 each.

WANTED "Stationary Engine" Magazine. Now only need 16, 17, 18, 24-34, 36. Have early copies to swap!

All above, phone Kim Siddorn 0117 964 6818

This column works – another engine sold here last month

Official Notification of the Annual General Meeting of the Wessex Stationary Engine Club Ltd.

At The Old Down Inn, 8.00pm Feb 23rd 2009

At the AGM, the year gone is dissected, the year ahead arranged to the member's liking and the committee members are appointed by a show of hands from the floor.

Our Constitution was changed at the last AGM & new rules apply for Postal Votes, meeting procedures etc. Please consult your copy of the Constitution should you need to do so.

**Remember, decisions are made
by those who turn up!**

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 can be handwritten, (if brief), typed or word-processed – 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

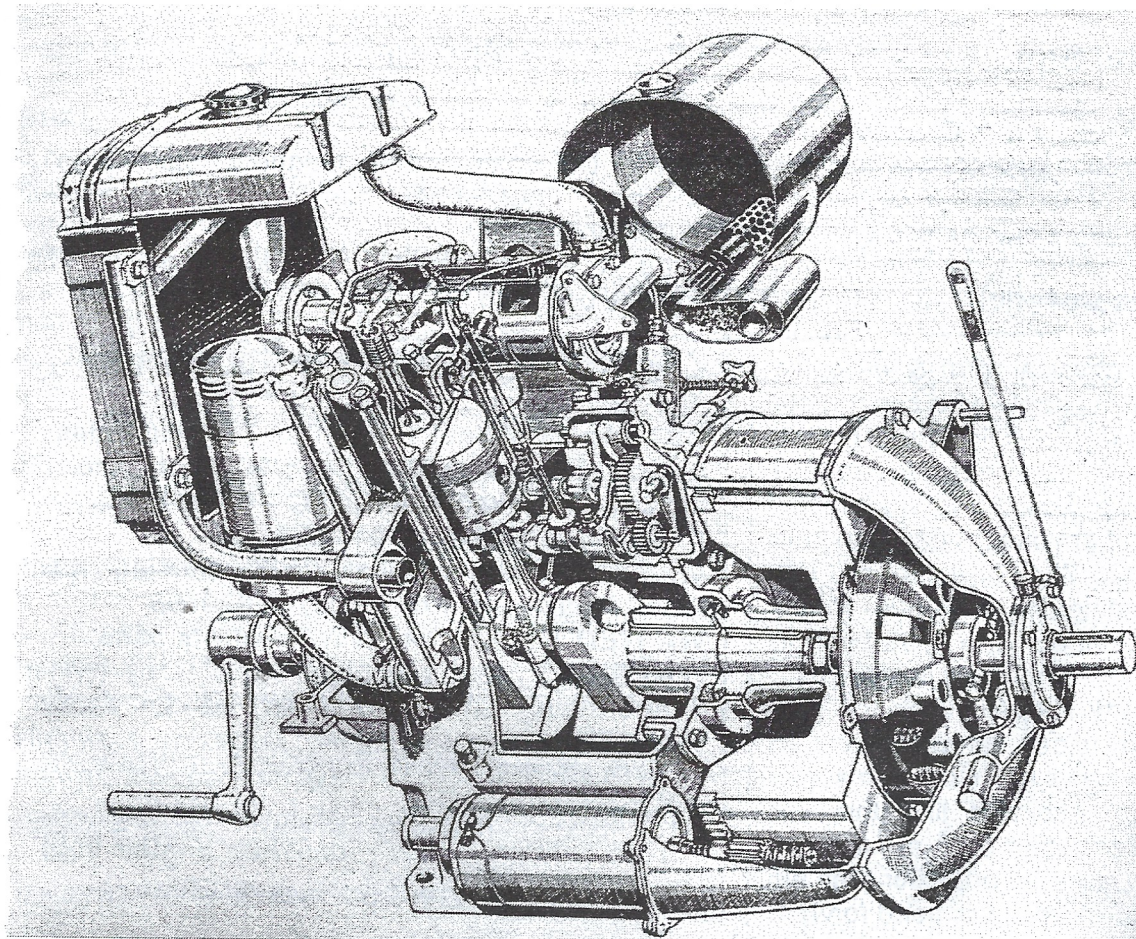
Deathless Prose and asks all to note that opinions expressed in this newsletter may or may not represent club policy
J. Kim Siddorn, 9, Durleigh Close, Bristol. BS13 7NQ or by e-mail to kim.siddorn@blueyonder.co.uk.

Featured Engine No. 22

Turner vee twin Diesel

By Kim Siddorn

A confusing turn of the name, but the Turner vee twin Diesel was built by Turner Manufacturing Ltd of Wolverhampton & was nothing to do with the prolific Stuart-Turner concern down in Henley on Thames.



The Model V 95 was an overhead valve engine with a bore & stroke of 3.75" x 4.50". Water cooled & carrying its radiator in front of the cylinders, it turned out more than 16 BHP at 1,800 RPM. It was designed to run between 600 and 1,800 RPM & had a BMEP of around 85lbs at 1,000RPM. Various models were made, but they all had a cast iron crankcase with a flat base with a securing flange.

The crankshaft was made of "Cromal", a particularly dense nodular iron specifically designed to give long service in this kind of use. It had a single throw & the connecting rods were carried side by side on the crankpin, utilising thin wall bearings of the Vandervell type. The mains were also thin wall lead indium bearings, allowing the engine to be readily overhauled.

The spur gear driven camshafts were mounted high in the crankcase at the 68° angle between the cylinders. Unusually, there were two camshafts which drove tappets, pushrods and a valve train of conventional type & appearance. A decompressor was fitted to allow hand cranking, although this must have required a good deal of strength on an engine of this capacity. The right hand

camshaft also drove a spring-loaded piston water pump at half engine speed.

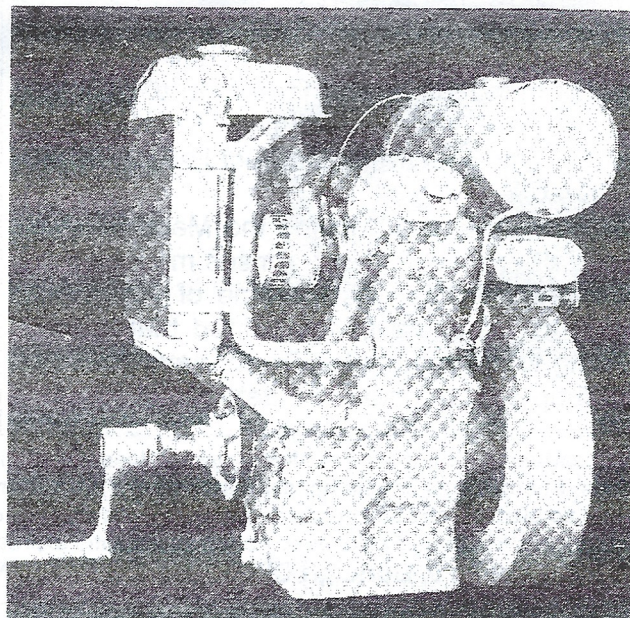
Also driven from the timing chest was the injector pump & this fed injectors lying at right angles to the cylinder. They discharged into a small combustion chamber & the flame front travelled across the piston, guided by an unusual widening groove. Considerable attention was taken to provide

clean air to the engine & Turners were noted for their long life & trouble free performance.

The centrifugal governor was an integral part of the timing case & was driven off the half time pinion.

One source says that they were designed to fulfill an Admiralty contract towards the end of the last war and were used as anchor winch engines. Certainly, the cutaway drawing shown here has a massive flywheel, electric start and a manually operated clutch, all of which would be useful features in the suggested use.

They were never especially common in their day and few remain on the rally circuit nearly some sixty years after their inception. I remember seeing one restored in an SEM a few years ago, but I've never seen one in the flesh.



Calendar of Events for 2008 - 9

Dec 7th . **Event.** Winter Crankup at Nunney Catch.

Dec 27th . **Event.** Mince Pie Crankup at the Old Down Inn.

Jan 26th . Club night. Guest Speaker:- Ashley Jones, A presentation entitled MORE OF THE SAME

Feb 23rd **31st ANNUAL GENERAL MEETING.**

March 7th . **Event.** Spring Sort Out at Cranmore Railway Station Yard.

March 21st **Club Visit:-** Oakham Treasures Retail & Farming Museum, Portbury Bristol. meet up at the museum 09.45am.

March 29th . **Event.** Spring Crank Up, Nunney Catch.

March 30th . Club night. Guest Speakers:- Ginger & Margaret – AUDEY PAWDEY & FRIENDS

April 13th . **Event.** Easter Monday, Mells Daffodil Rally

April 27th . Club night. Guest Speaker:- Richard Harris
BBC OUTSIDE BROADCAST PT 2 THE COLOURFUL YEARS

May 18th . Club night. **Members Evening:-** Bring along ten photo's or slides on any subject. There will be a prize for the best effort.

June 3rd . **Event.** D-Day Crank Up on Wednesday evening at the Old Down Inn

June 29th . Club night. Guest Speaker:- Kim Siddorn
OCEAN STRIDING BISON illustrated talk about Viking ships & their uses.

July 27th . **Event** at club night. Evening Crank Up at the Court Hotel Chilcompton.

August 24th . Club night. Evening Crank Up at The Old Down Inn. *(Please note that club night is a week early to avoid August Bank Holiday Monday)*

Sept 28th Club night. Guest Speaker:- Dennis Chedghey illustrated talk on 1930's RADSTOCK

Oct 10th . **Event.** Skittles and supper evening at The Royal Oak Corsley

Oct 17th **Event.** Winter Sort out at Cranmore Railway Station Yard.

Oct 26th . Club night. Guest Speakers:- Bob Burgess, Colin Dipper TRADITIONAL ENGLISH FOLK MUSIC

Nov 30th Club night. Guest Speaker:- Keith Shephard, illustrated talk titled A Look at the ENGINE MAKERS OF WESSEX

Dec 6th . **Event.** Winter Crank Up at Nunney Catch.

Dec 27th **Event.** Mince Pie Crank Up, Old Down Inn

ALL DATES ARE SUBJECT TO ALTERATION

Chairman's Report *(printed as received)*

The Autumn Sortout at Cranmore Railway Station on the 18th October was without a doubt the best one yet. I arrived at about 8am and the site was already bustling with buyers and sellers. This year we were informed that the café would not be open for food due to staff illness, however they told us they had no objection to us providing our own catering. Thanks to committee member Keith Nash who arranged for a catering unit to come in at very short notice to provide for our needs. (And the bacon sandwiches were very good). The sellers were situated all round the site and I just managed to

squeeze in the last ones to arrive. A steady stream of buyers arrived during the morning, probably encouraged by the brilliant sunny weather. This event is so easy to administer with just a few members to man the gate taking the money from the buyers and my task going round taking the stall money from the sellers. I would like to thank the people who made this event a success, namely the buyers and the sellers, and thanks to Jackie for handling the financial side of the event. The meeting at the Old Down Inn on October 27th had guest speaker Mike Rowland giving an illustrated talk on the Clifton Suspension Bridge. This was a superb presentation by a very good orator, and was well received by the members present; I will not dwell on the content of the talk as I believe an article on the meeting will be published in the newsletter. With two events this year where you will have a chance to display your engines, lets have a good turn out at the Anti-freeze crank-up at Nunney on the 7th December and the Mince-Pie crank-up at the Old Down Inn on the 27th December, there will be mince pies and sausage rolls at this event on a first come first served basis. Hope to see lots of you at these two events.

Welcome to ...

New members Mr & Mrs D. Jones of Bournemouth. We hope you will have a long & happy membership.

From the Treasurer

Jackie Lambert asks me to remind everyone that their subscription runs out on December 31st. They will not then be covered by the club's Third Party Liability insurance.

There is no change in subscriptions from last year and are £11 single, £13 Joint - Juniors, £1.

A Scottish Transfer

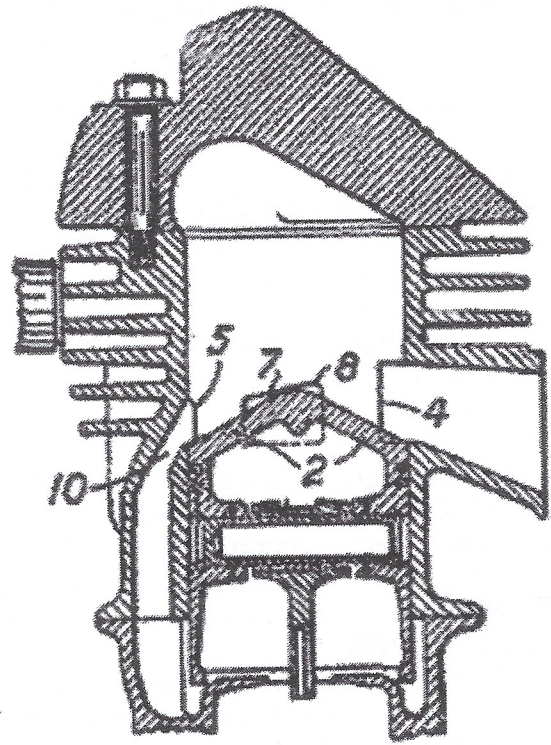
By Nick Highfield

As the stationary engine collecting son of a Scott motorcycle enthusiast, I have always sought to add examples of the marque to my collection and was recently lucky enough to acquire one of the 'PA' types which were used to power the wartime Bofors anti-aircraft gun. At first sight one might doubt that this was a Scott design at all - it is after all air cooled, petrol lubricated and has a flat (well, slightly conical) piston crown. However, the connecting rod has that familiar thin oval section and the 'style' of the main castings with their various cover plates is somehow reminiscent of the three cylinder motorcycle engines. But what of that flat top piston - surely loop

scavenging was an entirely alien concept to Scott until the much later Swift project?

Investigation of the cylinder porting revealed it was indeed a loop scavenged design, with not only classic paired Schnurle type transfer ports at approximately 90 degrees to the exhaust port, but also a small 'boost' port at 180 degrees (i.e. opposite the exhaust). This arrangement is widely supposed to have made its debut in 1957 on Walter Kaaden's successful 125cc MZ racing machines (e.g. Cesare Bossaglia 'Two-Stroke High Performance Engine Design & Tuning' and Graham Bell 'Two-Stroke Performance Tuning'), though the typically thorough Phil Irving ('Two-Stroke Power Units') points out that a similar system was patented by Zundapp in 1933, primarily in an attempt to circumvent the Schnurle patents, but not pursued for production until much later. Whatever its precise origins, the appearance of such a boost port in a production engine of the 1940's can be considered pretty 'cutting edge'. Some digging on the internet turned up GB patent number 512980 'Improvements in or relating to the scavenging of the cylinders of two-stroke-cycle internal combustion engines' granted to Scott Motors Saltaire Ltd. and William Cull in 1939 and describing precisely this arrangement of ports.

Interestingly the design is illustrated on an engine bearing a distinct resemblance to the Cyc-Auto (it has the characteristic inlet passage running

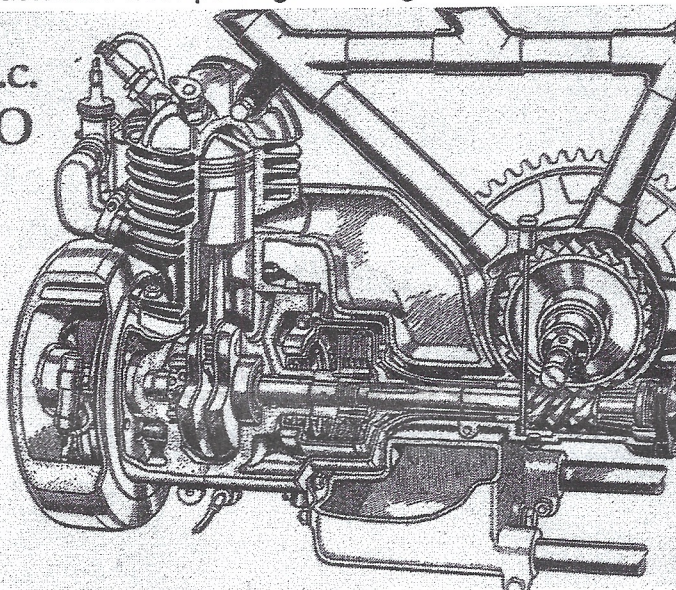


third admission port 5 is situated. The leads 8 may be either on the ports themselves or on the piston. The transfer passages behind the ports 5, 7 are steeply inclined upwards, that behind the port 5 being restricted at 10, and inclined at twice the inclination of the other ports, which may be that of the piston head."

(In the diagram, it is not immediately apparent that 8 is intended to be viewed as an inlet port on the far side of the cylinder from the viewer – Ed)

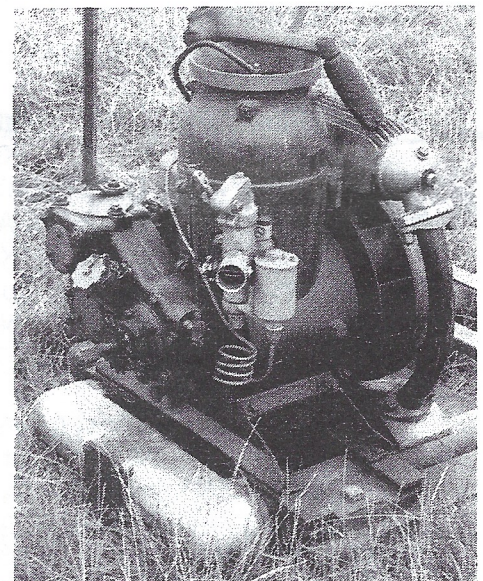
SCOTT 98 c.c. CYC-AUTO

A multi-plate clutch, worm drive and a transmission brake are employed in this ingenious Cyc-Auto unit



down the side of the cylinder from a high mounted carb). I'm not sufficiently familiar with the various Cyc-Auto engines to be able to say whether the third transfer port was used on production models - but if it was, then that least regarded of Scotts may just be one of the most technically advanced!

Patent No 512,980. Cylinders. SCOTT MOTORS (SALTAIRE), Ltd., and CULL, W. Feb. 23, 1938, No. 5656. [Class 7 (ii)] "In a two-stroke engine cylinder having a piston with a conical head 2, a pair of opposed admission ports 7, which have leads 8 so as to be opened progressively by the piston, are supplied by transfer passages directed to the side of the cylinder, opposed to the exhaust ports 4, where a



Above –

Seen at Astle Park on several occasions, this is a Scott PAB from a Kerrison Predictor generating set. An unusual engine, the least of its peculiarities is that cooling air is not blown around the cylinder, but sucked!