

North Birmingham News

NEWS SHEET

SEVERN VALLEY RUN

Well guys and gals what an astonishing day Sunday the 11th March turned out to be. I have to confess when Secretary David Spencer asked me, very politely, to move the Severn Valley Run to early March I was full of doom and gloom. Traditionally February and March brings all kinds of inclement weather and the ever present threat of 'salt' to corrode our treasured motorcycles. With this in mind, I printed off an optimistic 20 route sheets but as the day approached and the forecast got better and just better I flew into panic mode and printed off an extra 10 copies.

Thank goodness for the extra copies, Roger Slater and I arrived at the stroke of 10 to find Tony's Diner at Quatford near Bridgnorth already 'bursting at the seams' and riders approaching from all directions. I estimate we had 40 immaculate riders and machines present of which 33 'signed on'. Yes gentlemen and ladies, you and your machines scrubbed up a treat!! Riders came from all points of the compass with representatives from the North Staffs, Midlands, Worcestershire and of course our North Birmingham Sections.

The oldest machines present were Bill Orchard's splendid 1925 flat tank Sunbeam and those fine supporters of our section, Pat and Brian Empsall with their 1928 Triumph Combination. The 1930's were represented by Jonathan Jinks M20 BSA and Chairman Martin Round's 'first time out' Red Hunter Ariel sporting a very novel 'limp forward facing mirror'. Colin Lloyd and I spent some time discussing this device and concluded it was to either dazzle oncoming motorists or to act as a wind speed indicator!!!



Martyn Round, tools out, ready to adjust the Wind Speed Indicator

The 50's were represented by Ian Harris's 'sprint' 250 BSA now sporting a 'slick shift' 4 speed gearbox, Paul Harris on his B32A BSA, through Midland section member Brian Thomas on his rare 1950 BMW, Martin Griffith's immaculate Tiger 100 Triumph and Colin Lloyd's Huntmaster Ariel to Andrew Spencer's stunning 350 Velocette and including, of course, my 1957 420 Triumph which I see once a year when I can steal it from my son-in-law for its annual clean and MOT!!

Lots of splendid and immaculate BSA's, Norton's and Triumph to represent the 60's and not forgetting the 70's with Bob Arnold and Richard Bullock of the Worcester section on their MZ and Enfield workhorses.

Oil Analysis

Let's say you have a classic motorcycle that is pressed into vigorous use every day. Considerable time and money have been invested in the machine. It accumulates about 10,000 miles per year, yet each mile goes against your sense of preserving the motorcycle. Consequently very close attention is paid to regular oil changes, and a keen ear monitors each engine noise for early fault detection. Catastrophic engine failure with broken conrods and smashed crankcases is your worst fear.

Wouldn't it be convenient if you could check closely the wear of critical components every few thousand miles without disassembly of the engine? In fact this is entirely possible by a technique known as oil wear metal analysis.

We have all heard and appreciated the analogy that oil is the life-blood of the engine. In fact it's not a perfect analogy, but let's develop it anyway. In the same way that a nurse pierces our skin to withdraw a blood sample, the engine doctor takes oil from the motorcycle engine.

Is there any substance in the oil that should not be present, and of the substances that should be present, are they there in the correct amount. What should and what should not be present in your oil will vary slightly depending upon the materials used to construct the engine. For example, if it had no bronze bushes, you would not expect to find wear particles of copper in the oil.

For the purpose of this article a 1970 Norton Commando had travelled 3038 miles since it's previous oil change, the oil sample is taken whilst the HOT oil is draining mid-stream. Only 2 grammes of oil are needed by the analytical chemist so he can measure how much of each metal is present as a consequence of wear. An instrument called a plasma emission spectrometer is used, the plasma "flame" burns the oil sample at an immensely high temperature. Every different metallic element

Emits a different colour of light, and the intensity of the light is related to the amount of that element present in the oil. All of this is accomplished by sophisticated electronics under computer control, and less than five minutes are needed to measure all the elements present. Below is a table of information as supplied, let's examine how these results are interpreted in order to determine the health of the engine.

ELEMENT	SYMBOL	QUANTITY ppm
Group 1		
Iron	Fe	80
Copper	Cu	9
Lead	Pb	2350
Sodium	Na	44
Aluminium	Al	11
Chromium	Cr	4
Silicon	Si	20
Nickel	Ni	1
Group 2		
Magnesium	Mg	766
Calcium	Ca	1630
Barium	Ba	23
Zinc	Zn	1850
Phosphorus	P	1510

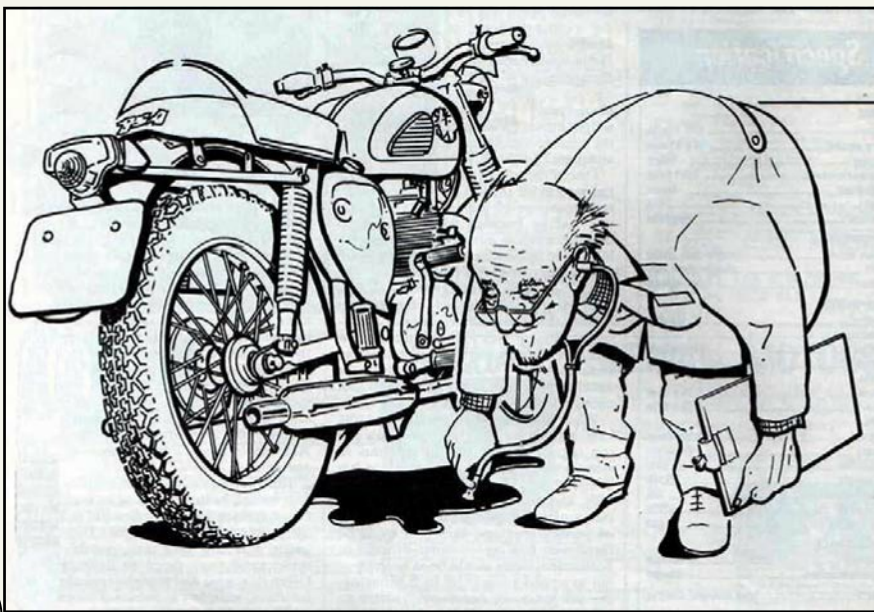
The first notation to explain is ppm, or parts per million. Percentage is just another way of saying parts per hundred, or pph.

So ppm is like percentage, except that it is based on a million rather than a hundred. For example, the analysis found that the commando's oil contained 80ppm iron in one million grams of the oil, 80 grams would be present. Percent and ppm can be equated—80ppm is the same as 0.008%.

Now let's review the results of the analysis by element.

IRON How does iron get in the oil?

Review all of the commando's engine parts that are made with iron or steel. The cylinder bore and piston rings probably contribute significantly to the 80ppm. The valve train, especially the tappets sliding on the



Cam lobes, usually adds to the iron level in the oil. The roller chains give off a fair amount of iron: a small roller chain drives the commando camshaft.

Further experience is necessary to judge that 80ppm is an indication of very good health in these areas. Cylinder walls, piston rings, the valve train and the camshaft drive are all wearing at very low rates, and one of these components is likely to fail for many miles to come.

If I had found 500ppm of iron in my oil, it would be prudent to tear down the engine and look at items such as the cam lobes, where the case hardening may have worn away, permitting even higher wear rates of the softer core metal.

Copper. The various bronze bushings in an engine are the predominant source of copper in the oil. My commando has cast-iron valve guides and no bushing in the small end of the con-rod, so the main provider of copper in its oil is the cam-shaft bushings. Also, the big-end bearing shells may use copper/lead as the bearing metals. A quantity of 9ppm of copper indicates that there is plenty of service remaining in any copper-containing bushings or bearings.

Copper levels between 100-200ppm would have me stripping down the engine in search of a breaking-up bushing. A word of caution though—some oil coolers constructed of copper can give off very high levels of this material. This is especially true if the oil cooler is new and its interior surfaces have not yet been passivated with time. Don't rebuild an engine just because of the oil cooler.

Lead. Conrod big-end bearings usually use lead as one of the overlay bearing metals. The first time I saw high lead levels of 2350ppm, I was alarmed—those bearing shells must be garbage! On further reflection I relaxed: the source of the lead was leaded gasoline. If you wish to monitor big-end bearing wear, it is necessary to use only unleaded gasoline.

The next time you drain the oil from an engine using leaded fuel, pour a quantity of the oil into a glass container and leave it undisturbed for several days. A grey film will form at the bottom of the container as the heavy lead settles.

Fortunately,

this lead contamination of the oil does not impair the lubricant's function.

Sodium. Metallic sodium is too reactive with water for it to be used in the construction of engine parts. So, unless a sodium-cooled exhaust valve has split, the source of sodium must come from outside the engine. Commercial anti-freeze/coolant solutions often contain sodium compounds, and sodium in the oil is a very good method of detecting coolant leaks into the crankcase.

The sodium level of 44ppm in the oil sample of my air-cooled Commando is really an indication of the air filter's efficiency. Sodium is a very common element found in large measure throughout the environment. When sodium accumulates in the oil, it is usually via airborne swarf. (In Canadian winter driving on salted roads, the sodium contamination of the oil increases greatly.) The 44ppm of sodium suggests that my air filter is acceptable, but not the best possible.

Aluminium. The main wear source of aluminium in the oil must be the alloy pistons sliding in the bores. But the aluminium level of 11ppm in the sample is very low, and provides evidence that piston scuffing is absent and the wear rate is minimal. Those pistons will continue to suck in air and fuel to pump out power for many, many miles to come.

Chromium. If an engine does not have chromium-plated piston rings or a plated bore, then the amount of chromium in the oil is usually less than 2ppm. The presence of 4ppm of chromium in the Commando's oil is acceptable, as it uses a chromium-plated top compression ring. In fact the figure of 4ppm indicates a low wear rate for this top ring.

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Finally Bill Bubb made a rare appearance on his equally rare and immaculate 250 V twin Honda.

At 10.30 prompt the flag dropped and they were off. The route took us up to the top of the Bridgnorth by-pass, then away from the main roads, and down the quite B4363, with its spectacular views across the Severn Valley, to Kinlet where we turned left and dived into the Wyre Forest to emerge at Lem Hill and then onto Clows Top with its views across to Abberley Clock Tower with the Malvern Hills in the distance. We turned right at Pensax and descended down to the Teme Valley hoping to see some daffodils and blossom on the way. It was not to be, so I'll order those for next year. At Stanford Bridge we headed along the Teme Valley past Shelsley Walsh and up the steep climb over Woodbury Hill to cross the Martley Road and through the apple orchards and onto Ock-eridge and our coffee stop at the Lenchford on the Severn, well after all, it is the Severn Valley Run!!!



Machines lined
up in glorious
March sunshine
at The
Lenchford

Thank goodness I rang ahead, the landlord provided us with copious quantities of tea and coffee and deserves our support. From the Lenchford we motored north through Shrawley, along the Severn to Bewdley (ice creams were available at Teddy Greys') over Shatterford Hill and onto Alveley where we re-joined the Bridgnorth road to finish the run at Tony's Diner Quatford.

Well guys and gals I have to say 'you did us proud'. It was our first run of the season, all went well. Thank you so much for your company, comments, suggestions, donations and good, no, great humour. You are a credit to motorcycling and our vintage movement in particular.

All the very best Bill Danks

Bill's Water Sport Activity Day other wise known as the mid week run

It was official – Thursday 25th April promised to be and was the wettest day of 2012!!! So it was that 7 stup - sorry stalwarts of our section braved the elements to at least reach the start of my run at Tony's Diner near Bridgnorth awaiting a miraculous change in the weather. It did not happen so we listened attentively to Colin Lloyds' lecture on how to crash, sorry Colin, land a twin engined aircraft on one engine. Very comforting as the day before I had flown across 3000 miles of the Atlantic Ocean in a twin engined Boeing 767!!!

Next topic up for discussion was the formation of a new breakaway group, the North Birmingham S.A.S (Sub Aqua Section). This done, and with arrival of our chairman we felt it necessary to embark on our first official event my Midweek 'plunge'. We donned our flippers, snorkels, face masks and set forth.

Messrs Dave Spencer, Ron Higgins, Colin Lloyd, & Mike Stephenson on BSA's, Martin Griffiths on his immaculate WD Triumph, Martin Round aboard his Ariel and Messrs Bull and Danks on BMW and Honda 'skulking' at the rear.

All went well for the first 400 yards when our first right turn brought us to a blinding halt with the biggest lorry blocking the narrowest of lanes. "Road closed mate!!!" from one of the workers. I simply asked if he had a road closure notice in force and where were the closure signs? It was a simple question which caused much huffing and puffing but we were allowed through with the exception of poor Mike Stephenson who was unable to shoehorn his BSA combo through the gap. Fortunately Martin Round had an escape plan up his sleeve which led them astray to the Swan Public House near Ironbridge.



Clearly remorseful, Martyn Round and Mike Stephenson explain later how they had spent lunchtime in the Swan 'keeping an eye out' for the others. It looks like Martyn had a good helping of Readybrek that morning. Either that or he hadn't used his waterproofs since the week of Chernobyl.

The stalwarts “splashed” on through Worfield, Burnhill Green, Sutton Maddock, Coalport and onto our coffee – ice cream, there’s optimism, stop in Ironbridge. Sadly Ironbridge was closed and deserted so we pressed onto Cressage doing a right turn through Harley and onto Hughley.

Now between Harley and Hughley there is a wonderfully straight, 2 mile long, Roman Road, usually with magnificent views across to the Long Mynd. Sadly I was distracted by this thought and hit a temporary ford in a hollow at about 50 mph. Honestly guys, I’m sure my wheels didn’t touch the bottom but thank goodness for the full screen and leg shields on my old Honda.

We pressed on through the deluge, Trevor Bull and I tucking in behind a lorry creating a huge bow wave which cascaded over the hedges, through Longville, Rushbury, and Monkhampton, again usually with superb views across to the Clee’s and the Wrekin. Our final leg took us through Netchwood to meet the Bridgnorth by-pass and onto our finish at Tony’s Diner, a tad damp but unscathed which is a credit to our riders tenacity and the preparation of their machines. Well done guys you did the section proud!!! Apologies to Colin Lloyd, I did not include a ford, on the 25th they just happened to be there. Hopefully this will be the first and last run of the season for the North Birmingham’s Sub Aqua Section and perhaps on second thoughts it should be re-titled the North Birmingham Silly Arse’s Society.

Bill Danks



Colin Lloyd, Ron Higgins, Martyn Griffiths, Trevor Bull and Bill Danks on arrival back at Tony’s. The picture doesn’t do it justice, to share the full sensory experience with them, take a large jug of cold water and pour it slowly into your underpants

Girder Fork Run

Some twenty daring souls gathered to cock-a-snook at the Rain God and ride old motor-bikes on Sunday the 20th; He must have been appeased by the sight of girder machines from the works of Scott, Sunbeam, Ariel (2), Triumph (2), B.S.A. and Royal Enfield, for all that we had to contend with was a heavy overcast sky and a day which was cool but otherwise dry.



Prompted by Colin, the first group of riders were away by 10.40, heading out through Chaddesley Corbett and the back lanes to Ombersley, the stepping stone for Ockeridge, Wichenford, Knightwick and the coffee stop at the bottom of Ankerdine Hill.



With the riders reassembled, the girder fork line-up in front of The Talbot included the vintage machines of Trevor (Sunbeam), Maurice (Ariel) and Rob Todd (Scott) whilst the post vintage era was represented by Jonathan Jinks' M20, the Triumphs of Martyn Griffiths and Jeff Stirrop and the organiser's Ariel. Once inside and in front of a welcome log fire we sat and chatted with, amongst others, Carol and Steve Stott (Triumph T100) and Colin McMurray (Velo MAC) – existing club members and welcome participants on our social runs.



Suitably refreshed and warmed the field took to the road again for the twenty eight mile meander through Suckley and onto Cradley where a few of our number went on a 'signpost hunt' - just to add that extra element to the ride. Eventually, having crossed the Malverns at British Camp we gathered just beyond Castlemorton Common at The Farmers Arms for lunch.

Back in front of a log fire, the second of the day, Jonathan Clarke outlined the technicalities of his Rudge Multi restoration whilst Dave Spencer sampled the Steak and Kidney pie – and declared it more than satisfactory and slightly superior to that sampled on Thursday's Hundred House run. Fed, watered and warm again our band of intrepid motorcycles re-convened in the car park to select a suitable homeward route in the somewhat brighter afternoon.

Thanks to all who rode all or part of the route and to those who joined us at the start.