



WESSEX VEHICLE PRESERVATION CLUB

FOUNDED 1971

www.wvpc.org.uk



'WESSEX WAYS' JULY 2017

VEHICLE OF THE MONTH



The **Napier-Railton** is an aero-engined race car built in 1933, designed by Reid Railton to a commission by John Cobb. It was driven by Cobb, mainly at the Brooklands race track where it holds the all-time lap record of 143.44 mph which was set in 1935. This stands in perpetuity as the circuit was used for military purposes during the second World War and was never used as a racing track again. Between 1933 and 1937 the Napier-Railton broke 47 World speed records at Brooklands, Montlhéry and Bonneville Salt Flats in Utah. The car is powered by the 6.1:1 high compression naturally aspirated W12 Napier Lion engine of 23.944 litres capacity, producing 580 brake horse power at 2,585 rpm. The 12 cylinders are in three banks of four (broad-arrow configuration), hence the triple exhaust system, and the engine has standard aerospace features such as dual ignition. The non synchromesh crash gearbox (aptly named for the horrible noises caused by a mis-shift) has 3 ratios. Fuel consumption was approximately 5 mpg. Although capable of 168 mph the car has rear wheel braking only.



Brave photographers at the top of the Brooklands banking, with the Napier Railton leaping clear of the uneven concrete track at high speed.

CHAIRMAN'S CHATTER

Hi Everyone,

Not much to say this month as the editor is off on his travels – it's OK for some. I have just received news that a good day was had by all who went to the Lake Shipyard, where the weather was dry but quite windy. Good news for the Bike Section who walked off with 3 prizes. I will update on it all in the next newsletter, meanwhile all drive and ride with care.

Doug

THE LATEST FBHVC NEWS

VEHICLE EXCISE DUTY

I should remind everyone that, from 1 April 2017, the ability to be registered in the historic class and thus to be eligible for nil rate VED rolls forward to vehicles built up to 31 December 1976. Because of a change all these years ago in DVLA procedures, it is possible that there might be issues with vehicles built before 31 December 1976 but first registered during 1977, in respect of which in previous years there was a clear procedure whereby manufacturers' records or approved equivalents were accepted and the date of manufacture was corrected. We have queried the position with DVLA and they are examining the situation. If any member experiences problems with this circumstance please let Ian or myself know.

FUEL NEWS - Manchester XPAG Tests, Modern Petrol – Volatility

Paul Ireland

The Federation contributed some financial support to this series of tests in 2016. Paul Ireland has kindly written a summary of his findings for this Newsletter.

To investigate the problems of running classic cars on modern petrol, a series of tests has been run on a 1940s twin SU carburettor XPAG engine at Manchester University School of Mechanical, Aerospace and Civil Engineering.

Petrol consists of over 300 different hydrocarbons. Measuring the volume of fuel that evaporates as a sample of petrol is heated gives a distillation curve for that fuel. The graph below compares the distillation curves of the different fuels used in the Manchester tests and that of 1930s petrol which remained virtually unchanged into the 1970s.

The curve for modern 95 octane forecourt petrol (blue line) compared to 1930s petrol (the orange dotted line) shows that classic petrol is much less volatile, especially at typical engine bay temperatures. This increased volatility of modern petrol is at the heart of the problems suffered by classic car owners.

A petrol engine produces colossal quantities of heat. Unfortunately, only around one third of this heat energy is converted into power to move the car forward, the remaining two thirds is waste heat, most of which goes into heating the engine bay. At Manchester, the highest petrol temperature in the carburettors when running at full power was 42°C. Not sufficiently high to cause problems.

The thermal image shows the blue float chambers silhouetted against the white (300°C plus) exhaust manifold. Despite being positioned less than one inch above the exhaust manifold, the petrol flowing through the carburettors is keeping them cool. After the engine was stopped, the tests showed the carburettors were being heated by hot gasses coming from the engine through the inlet manifold, not by heat from the exhaust manifold: thus demonstrating that it is not obvious how the carburettors are being heated.

In slow moving traffic, two effects work to increase under-bonnet and petrol temperatures. Although the engine is running at low power and producing less heat, the rate at which heat is lost is reduced, there is less air flow through the engine bay. In addition, petrol is flowing more slowly through the carburettors and has more time to heat up. When the engine is switched off, petrol stops flowing and its temperature will continue to rise as heat soaks out of the engine, exhaust and radiator.

The distillation curve for 95 octane fuel (above) shows a rapid rise in the volume of fuel evaporating between 45°C and 70°C. As the fuel boils, vapour bubbles in the petrol result in the carburettor delivering a much weaker mixture. This is what causes the engine to stop or prevents it from restarting. The best way to address this problem is to use a petrol with fewer low temperature components, more like the 1930s petrol. This reduces the volume of fuel that will boil as the engine bay gets hotter.

Unfortunately, it is not possible to make any specific recommendations for two reasons. Firstly, the regional UK fuel distribution industry is served by around 14 different refineries, all of which produce slightly different base stock. Secondly, there are three different grades of fuel sold throughout the year:

- Winter fuel - October to April.
- Intermediate fuel - April to May and September to October.
- Summer fuel - June to August. This will probably have fewer low temperature components.

In practice these dates are not fixed and will vary with ambient temperature and the turnover at any particular filling station, making it virtually impossible to know what grade of petrol is being sold. The data above indicates super grade fuels are possibly less volatile. However, it is worth trying different brands to find out which petrol and grade gives the smoothest performance and will reduce vaporisation problems.

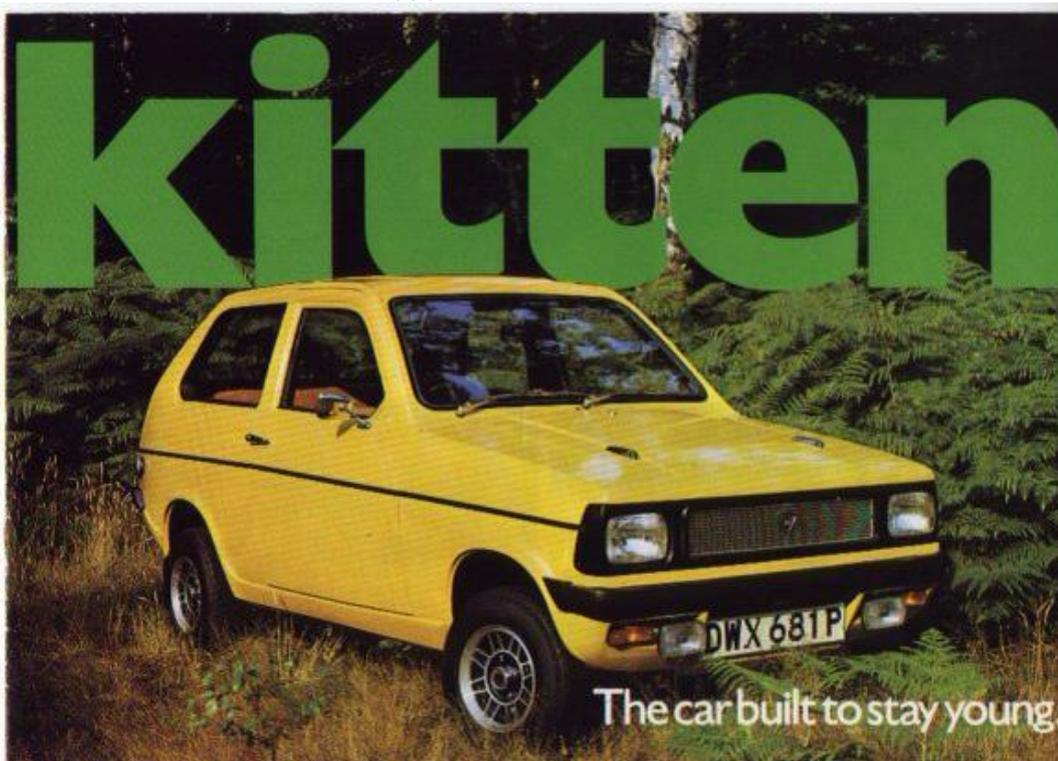
It is important the engine is properly tuned. Even a few percent reduction in efficiency, probably not noticeable in normal road use, will increase the amount of waste heat. The cooling system should also be working efficiently. Electric radiator fans help keep air circulating but may make matters worse. In slow moving traffic, they are drawing hot air through the radiator and blowing it into the engine bay. It is also worth fitting a timer or equivalent circuit to ensure any electric fans continue to run for around 5-10 minutes after the engine has stopped.

Anything that can be done to keep the fuel system, particularly the carburettors, cool will help reduce the severity of the problems caused by the low temperature volatility of petrol. An infrared thermometer or thermal imaging camera is the ideal way to identify hot spots. Unfortunately, as soon as the bonnet is opened, the temperature profile will change. As an alternative, digital multi-meters with thermocouples are now inexpensive and provide the means to allow your passenger to accurately measure the temperature of the fuel system even while a car is moving. Unfortunately, there is no magic solution to this problem but with care it is possible to reduce its severity.

CLUB NEWS

David Davies

The **Reliant Kitten Register** tells us that if you give a man a woman he will be happy all night. If you give him a woman who loves cars he will be happy for the rest of his life...



The **Austin Ten Drivers' Club** magazine tells us that there are now only 19 AA telephone boxes remaining out of the 1,000 that once graced the roadsides throughout the country and that eight of the survivors are grade II listed buildings.

The **Austin Seven Clubs' Association** remind us that it is the 150th anniversary of the birth of Herbert Austin and the 95th anniversary of the introduction of the Seven.

TEMPORARILY MISSING MONIKER – THE BRISTOL by Gordon Bruce – An article reproduced with thanks to the FBHVC.

The quintessentially British marque Bristol has been missing from the sales charts since 2011, but is due to bounce back with a new high-tech offering during 2017 – reason enough, we felt, to delve into the history of this extraordinary business, whose roots date back to the Bristol Tramways Company of the 1870s.

Born of working class parents, George White departed the education system in 1870 aged 14, and while employed as a junior clerk by solicitors Stanley Wasbrough was appointed company secretary of Bristol Tramways. By 1894 he was its managing director and the following year revolutionised the city's tram system by replacing its horses and steam engines with electric power. The innovation quickly spread to Bath, Cheltenham, Swindon and even London. He then further integrated Bristol's transport network with a fleet of buses but, appalled by their quality, created his own commercial vehicle division to build quicker, more reliable equivalents; the first was the C40 that hit the road in 1908.

That same year, White launched petrol-powered taxis, whose quiet, reliable operation quickly supplanted Bristol's many horse-drawn cabs, and by 1911 Bristol Commercial Vehicles was building coaches, lorries, vans and even hearses; as well as the aforementioned trams, buses and taxis. A one-stop shop for integrated transport, the company was soon exporting its products to Europe, the USA and even Australia, while on the home front it was said the firm could provide mobility for every Bristol resident, from 'cradle to grave'.

Bristol takes to the air

A recognised philanthropist, George White was accorded a baronetcy in 1904. The wealth of his success allowed him to indulge his son Stanley in his passion for the motorcar. The family purchased a Leon Bollée and it was in 1908, during one of their many trips to the factory at Le Mans, that Stanley and his uncle Samuel witnessed one of Wilbur Wright's first European demonstrations of powered flight. They reported back to Sir George, who was quick to grasp the potential of this ground-breaking invention and within two years he and Samuel had founded the British and Colonial Aeroplane Company, which rapidly became the world's largest aircraft manufacturer.

Its first successful design was the Bristol Boxkite, the production of which began in a former tram shed at Filton in June 1910. A month later the Whites formed a flying school with premises at Brooklands and Larkhill on Salisbury Plain – highly regarded, the operation was responsible for 308 of the 664 Royal Aero Club certificates issued between 1910 and 1914. Come WWI, the Frank Barwell-designed Bristol Scout was one of the first fighter aircraft to enter service, while the later two-seater Bristol Fighter became a stalwart of the Royal Flying Corps and then the RAF. Following the war, the company was restructured and renamed the Bristol Aeroplane Co., while Cosmos Engineering was purchased and formed the basis of a new engine operation - by 1929 Bristol-made aero units powered over half the world's aircraft, and broke the world altitude record five times between 1929 and 1937.

The White family prepared assiduously for the possibility of a second world war, and when it came the Filton works was the largest single aircraft manufacturing plant in the world, with a floor area of some 2.7 million square feet. The Beaufighter fighter/bomber, a development of the Beaufort, was used extensively by the RAF, Commonwealth air forces and USAAF. Successful post-war projects included the Britannia airliner, Bristol Freighter transport plane, Sycamore and Belvedere/173 helicopters and development work for Concorde. In 1959, Bristol's airframe division became part of the British Aircraft Corporation and its engine operation was merged with Armstrong Siddeley to form Bristol Siddeley.

Preparing for peace

To overcome the dramatic loss of business following the 1918 armistice, Bristol had hastily undertaken the construction of car bodies for Armstrong Siddeley and bus and coach ones for the sister business of Bristol Tramways. The manufacture of a light car (the Bristol Monocar) was also considered, but only two were ultimately produced. Having assumed control of the business from his father, Stanley White was determined to have a more structured plan in place for the 70,000 now employed come the end of WWII hostilities. This ultimately included the manufacture of aluminium framed prefabs and high-speed metal hulled naval boats.

More germane to our story, as early as 1941 Stanley's son (another George White), had proposed a car manufacturing division, for which it was intended to purchase an existing maker. Alvis, Aston Martin, ERA, Lagonda and Lea Francis were all apparently considered, but in the end a marriage was forged with Frazer Nash. With the support of the War Reparations Board, the rights to manufacture the BMW 326, 327 and 328 and their famed six-cylinder engine were secured and the future looked bright. However, by January 1947, immediately following the production of the first cars, the parties fell out, Frazer Nash was resold and the Bristol Car Division became a standalone entity.

Place a pre-war BMW 327 alongside Bristol's first offering, the 400, and the ancestry is self-evident, but there were many differences. White's insistence it should be a four-seater saw it based on the longer chassis of the 326. The aircraft grade Bristol body was more streamlined than that of the 327, while Bristol developed the already impressive 328 engine into one of the finest 2-litre units of the period, which powered not only all Bristol models until 1961, but various sports and racing cars from AC, Arnolt, Cooper, Frazer Nash, Lister, Lotus and Tojeiro. The car's interior trim was an unmistakably British blend of leather and wood.

The distinctly more modern 401 and ensuing 403 were styled by Carrozzeria Touring of Milan, while the 405 was, so far, Bristol's only journey into the four-door market - according to the late Bristol aficionado Leonard Setright, the nose design of the 404/405 was inspired by the air intakes of Bristol's Brabazon airliner engines. By the '60s, luxury cars were boasting ever bigger multi-cylinder engines and it was time for Bristol to step up to the plate, hence the 407 became its first model to feature a Chrysler V8 in place of Bristol's venerable six-cylinder unit.

Brief foray into motorsport

To date the company's only direct foray into motorsport was with the 450. The pair that ran at Le Mans in 1953 had challenging looks and suffered engine failure. However, a trio of restyled coupes won their class and the team prize at La Sarthe in 1954, as did the open-topped derivatives of 1955. The future looked rosy but the tragic accident that killed 84 people during that meeting helped quash the company's competition desires - it donated its prize money to the disaster fund and destroyed all but one of the cars, which these days belongs to arch Bristol collector and Virgin Records co-founder Simon Draper.

The company's last hurrah before all car production was suspended in 2011 was the gullwing-doored Fighter. Powered by the V10 engine of the Chrysler Viper, the normally aspirated version was limited to a heady top speed of 210mph - just 13 standard Fighters are thought to have been made. Rather sadly, no examples of the proposed 225mph turbo variant ever found their way into production.

New chapter

The order book is now open for the latest chapter in the extraordinary Bristol story - the £250,000, BMW V8-powered, carbon-bodied Bullet that features distinct design cues from the company's back catalogue. Only 70 will be made, a nod to 2017 being the 70th anniversary of the firm's car production. In an apparently neat completion of the circle, Bristol Cars is nowadays owned by Frazer Nash (though there is actually no direct link to the company Bristol briefly owned in the '40s), who see the Bullet as a public showcase for its innovations. The 2018 version will therefore boast its latest 'range extender' technology.

The Bristol showroom is a London landmark. In the days when the company's erstwhile sole agent, the late Tony Crook, also served the Fiat, Abarth and Simca franchises, the business straddled West Kensington's Addison Road, but for years has occupied just the north western corner of its junction with Kensington High Street. A successful racing driver, Crook was a Marmite character who began selling Bristols from a garage in Caterham before becoming a director of the company in 1960. He assumed full control in 1973 and then left amid acrimony in 2007, after being reportedly locked out of the showroom he had presided over for so long. Rumour has it he once paid people to dress up as tramps and sit outside the Rolls-Royce showroom in Berkeley Square.

For sure, to purchase a Bristol you had to meet his approval, as did King Hussein, Tina Turner, Richard Branson, Bono and even Liam Gallagher, among others – Michael Winner reputedly did not. This requirement may partly explain why only around 2,700 examples of the breed have been crafted in 70 years – less than 40 a year.

As we write, the famous showroom is undergoing a makeover to reflect the company's more contemporary new direction. So too is the little known basement – a time warp treasure trove of filing cabinets and plan chests that not only contain the histories of every Bristol ever made, but everything from manufacturing drawings to wind tunnel models; also reams of exquisite artists' impressions of proposed facias, bespoke models that never made it into metal etc; all superbly crafted in pen and ink by a Mr Revell of the company's one-time aircraft division. As things stand Bristol looks set to add a very exciting future to its fascinating past.

THE INNOCENCE OF YOUTH by Steve West

Imagine a callow youth of 17 – he has just invested the whole of his savings of £30 in what his parents consider 'a right old banger'. Naturally he is a proud young motorist with a new driving licence who is ready to conquer the roads of the kingdom. Unfortunately, his schooling omitted to include the wonders of the internal combustion engine in the syllabus, so the workings of his elderly Ford Prefect are as yet a mystery to him. By good fortune, his parent's grocers shop is just a few yards away from the local garage, and he soon learns that some of the mechanics are happy to explain things to him, and how to get his reluctant car to start on cold mornings.

One mechanic in particular is kind enough to explain the workings of the side-valve engine to our innocent lad, and to even help out when things don't go as they should do. This mechanic, by the name of Jack, is himself quite young and debonair, and asks our youth if he would like to help him prepare a 'special' he is building in his spare time. The glamour of this appeals to our lad, and he is soon found in the workshop after hours, helping to cut out headlamp holes and prepare the bodywork of a fibreglass body shell. It's boring work, but the thought of working on this 'special' sports car keeps him returning for an hour or two of work evening after evening.

At last, Jack announces that he is going to fit the body shell to the chassis of his donor car, but this specialist job will have to be done by him and some of his friends one night. Although disappointed, the lad is encouraged by the offer of a ride in the car once the engine is running. So it was a few evenings later that he found himself sitting on a pair of breeze blocks on the floor of the 'special', while Jack sat on a hastily assembled seat. The body was unpainted, there was no windscreen, instruments or number plates, but these minor omissions passed unnoticed as the six-cylinder engine roared into life. Jack tore off up the road and did a quick tour of the neighbourhood back-roads. To the youngster bouncing around on the breezeblocks and clinging onto the windscreen frame, it was an exhilarating experience as he had never been so fast, and had never ridden in a sports car.

Work continued on the car bodywork, but of course it was slow going. It was shortly to be painted, but there was still no bonnet to the engine bay, where the top of the engine protruded slightly above the bodywork. Jack said they had to collect a steel bonnet he had in storage, as he could then shape it to cover the top of the engine. So one evening they went in Jack's Morris Minor a few miles away, but instead of going to a storage shed, they went down a track into some woodland. Jack went slowly while looking into the undergrowth, and finally stopped by a stand of young saplings. He ferreted around in the undergrowth, and re-appeared with a small car bonnet in his hands, which he stowed on the back seat. 'I thought you said you had a bonnet in a store' queried the lad. 'Oh yes it was' replied Jack, 'but a friend said he would leave it here for me to pick up as he had to go out.' To the young innocent, this sounded perfectly feasible, so nothing more was said as they returned to the garage.

At this time, the lad and his parents were going on their annual holiday, which this year was to be for a whole two weeks. As soon as they returned, the eager youth ran round to the garage workshop to Jack and to see how the 'special' was progressing. He was met by some stern faces, but both Jack and the 'special' were missing. The kindly foreman explained to him that Jack had been arrested and taken away a few days before, then a lorry had come to fetch the 'special'. He didn't know anything more, and was sad to lose Jack, who had been a good mechanic. Thoroughly dejected, our young man returned home to tell his parents the news. It wasn't until the local paper arrived a couple of weeks later that he learned that Jack was being charged with theft and destruction of a motor car, namely an Austin Healey. The callow youth was no longer such an innocent!

THE CONKER RUN OR NOT?

At the last club night I made an announcement with regard to the annual Conker Run, saying in effect that for the amount of effort that goes into organizing the run, it did not seem worth it just to end up being parked in a public car park with hardly any public coming to look at the vehicles. To really make matters worse, there was never going to be a return to being allowed to park on the sea front as we used to do. Now the whole issue of the sea front saga was raised when I first enquired about returning there to park; Swanage Town Council replied saying that they could only follow the advice of the Highways Department who had been against a return, so I contacted the Highways who told me that this was not their decision to make and it was down to the Council! So once again I confronted the Council explaining that I had been in touch with the Highways Department. Once they realised that I knew the truth they then admitted that the final say was down to them and they had indeed made that decision against our return to the sea front.

Moving on, after I mentioned to them that we may scrap the run, I was approached by a few club members who were concerned that the run may be stopped. After hearing their concerns I made an approach to Weymouth and Portland Borough Council, who it must be said were quite keen to have us there, not forgetting of course that the only reason we changed the Quay to Quay Run venue was due to Weymouth wanting £220 for us to park on the end of a disused jetty. However, after a few phone calls and the odd e-mail I managed to get the price down to £96. Now that may not sound much but it would mean an increase of £2 on the run charge, so it's down to you the club members as to whether we go ahead with it or not.

Now I anticipate some of you saying 'what about my subs - why can't the club pay for the run?' What you should bear in mind is that there hasn't been any increase in the annual club subscription for quite a number of years, and I hope it remains the same for some time to come. So what do your subs get spent on? For a start there is the peace of mind that when you are on a club event where you are insured for up to 5 million pounds; we also have to pay for the club meeting venue plus of course the speakers, and not forgetting the Federation fee, the cost of the Wessex Ways, club stand equipment, postage etc. The only money we make is what we get from the raffles and the yearly auction, so all in all I don't think that's bad. You of course may disagree, and if you do, then come and see me and we can discuss it further. In the meantime do please let me know what you think about the Conker Run - after all, it's your club as well as mine, and all I try to do is to keep it ticking along. If enough interest is shown then I will continue with the Conker Run. Thank you. Doug.

TALES WANTED (tall or otherwise).

We are fortunate this month in having two great tales, one of the present and one of the much-loved past. So do delve back in your memories and in those old photo albums, and let us all share those pieces of personal history. Don't worry if you just write it on a piece of paper, as the 'staff' here are reasonably competent at typing it up. We can always source some historic photos to match a story somewhere if necessary.

WVPC CLUB LOGO CLOTHING

I have had quite a few of you enquiring about T-shirts and fleeces with the car club or bike section logo on, so being an efficient chairman, I have got some prices for you to consider:-

Polo Shirt with either logo on - £9.25 plus VAT.

T-Shirt with either logo on - £8.25 plus VAT.

Sweatshirt with either logo on - £10.99 plus VAT.

Full Zip Fleece with either logo - £19.95 plus VAT.

If anyone would like to place an order, do let me know.

Doug.

WVPC COMMITTEE MEMBERS

Chairman - Doug Cronk - duggcronk@btinternet.com - 01202 895387

Secretary - Janet Palmer - familypalmer29@hotmail.com

Treasurer - Val Baker.

Website Co-ordinator - Dennis Stranack - wvpcweb@gmail.com and alpinecruising@gmail.com

Motorcycle Section - Ian Campbell - bikes@wvpc.org.uk

Committee members - Colin Baker, Peter Allen, Christine Fletcher.

FORTHCOMING EVENTS

July 11th – Grand bingo night at Cobhams.

July 20th - Bike Section at Bloxworth.

July 29th – Possible bike section run to Calne (details to follow).

August 6th – Lymington Car Show. Club stand.

August 11th-13th – Purbeck Rally. Club stand plus the ever popular fish-and-chip supper on the Saturday.

August 17th – Bike section at Bloxworth.

September 12th – Cars at Cobhams – noggin and natter.

September 21st – Bike section at Bloworth.

September 28th – Skittles match at Bloxworth with ploughman’s supper.

EDITOR’S COLUMN – chrisspacey65@gmail.com



A well-known supermarket delivery van following satnav instructions. It took an hour to extricate it from the undergrowth.