



# NORTH HAMPSHIRE AUSTIN ENTHUSIASTS' GROUP welcomes owners of Austins and other vintage & classic cars

## CHAIRMAN'S CHUNTER

We have sizzled in the 30°C summer and some members have had issues with vapour lock. So, in technical matters we look at fuels again. This is now very important as the DfT plans to upgrade 95 Octane fuel to 10% Ethanol (to be sold as E10) and withdraw 97 Octane and eventually, E5 petrol. (*see page 10*).

The 'Member Interview', this month, (*see page 4*) features Malcolm Ryley telling his car story and especially his involvement with Lea-Francis and Riley cars.

So, continuing our series on members' car types, it seemed appropriate to look at the Lea-Francis history in more detail; especially as it was one of the most popular sports cars of the 1920s (*see page 7*).

Andy Ranson has found some more vintage adverts (*see page 14*) and quizmaster Trevor has set another teaser (*page 17*)!

There is also a new Caption Competition (*on page 18*).

Finally, Aunt Brassica (*page 19*) is offering more seasonal advice on picnics.

The Nightjar 2018 is now launched (*see page 2*) with Richard Long as the Event Organiser and our hearty thanks go to Trevor, Colin and others, who have passed on the responsibility for continuing this popular NHAEG event.

Happy motoring,

*Simon*

## THE SEPT 2018 NEWSLETTER

### CLUB NEWS

#### BEN Run Saturday 30<sup>th</sup> June

This was a hot sunny day for the BEN charity run on some of the private roads in Windsor Great Park.



Starting at Ascot Golf Club, the 98 cars set off in groups of 5 by age (of car), following a 35 mile 'tulip' round route, followed by

picnics, or a BBQ that had been put on.

The atmosphere was a bit like a garden party! I counted 8 NHAEG members with partners/guests who had entered (including 3 committee members). After lunch, Concours D'Elegance prizes were awarded and Andy Seager won a bottle of fancy car wash as a prize for best in his class!

#### Club Night Coveted Car Evening Monday 9<sup>th</sup> July

Approx. 25 or so members were present, to be judged by their peers. Richard Long was on a real winning streak, not only winning coveted car, but also 3 raffle prizes!

The winning owners for the cars in each class were:

Most Coveted: Richard Long

Best Austin: Dave Butcher

Best pre-war non-Austin: No entries

Best Post War Classic: Don Breakspear

Best Oily Rag: Tim & Ann Proctor

This year we had introduced a new category for the best

'Oily Rag' car, meaning the car isn't over-restored but running, legal and safe and uses anything that is serviceable, without the paint or trim being restored just for the sake of it. It's very much about keeping the patina of age and probably applies to many of our members' cars.

Strangely, there were no Riley or Talbot entries for the best pre-war non-Austin class!



### Club Night Monday 13<sup>th</sup> August

A contingent of 'Observers' came from the Guildford Advanced Motorists to experience vintage motoring. Normally they help to train drivers like you and me in advanced roadcraft skills. They were particularly keen to understand the issue we face in terms of cockpit drill and the steering and braking. We thought it might be an opportunity for them to offer some feedback on our roadcraft. But it also showed how ill prepared some of them were for the level of early anticipation that our cars need to accelerate into traffic and to cross roads.



### Camberley Car Show Saturday 18<sup>th</sup> September

Four NHAEG members were among over 200 other owners' cars displayed in Camberley town centre along Park Street, High Street, Princess Way and Obelisk Way. The range of cars was incredibly diverse, ranging from a 1915 Ford Model T, a 1943 GMC DUKW, a 1951 Bedford OB 30-seat Bus, a 1972 Jaguar E-type Series 3 to a fully road legal Batmobile made in 1989 for a film, complete with flame thrower! Needless to say, there were lots of other very beautiful cars of all ages to admire, including other Austins. Entry fees and donations were in aid of The South West Thames Kidney Fund charity and over £35,000 has been raised over the years by Ken Bonner and the Collectively Camberley team.



### FUTURE EVENT FOR MEMBERS – THE NIGHTJAR SATURDAY 17<sup>th</sup> NOVEMBER 2018

Would you like to use and improve your map reading & orienteering skills? This much-loved 'Navigational Scatter' event has been running for 42 years and is one of a series of Inter-Register Club events run for vintage and classic car enthusiasts, but it is open to novices and modern cars as well. There are classes covering Pre-war Vintage Cars, Post-war classic cars (up to 1978) and Modern Cars (1978 onwards). There are prizes based on the number of points scored in each class; for the best Beginner, Novice and Expert and other sub-groups like the oldest driver & car, the youngest navigator, an all-woman crew, etc. There is also a raffle, in the hope that everyone goes home having enjoyed the whole evening.

Arriving at Old Basing Village Hall, the instructions are given out to entrants. These include the list of manned and unmanned controls to plot on their map. As there is no given route, they select their optimum way around. They are aiming to visit a maximum of six manned locations and six unmanned locations, collecting bird names, before travelling back to the finish at Old Basing, where a fish & chip supper is provided.

At each Manned Control point visited, entrants are given written instructions by a marshal, which should lead them, on foot, to the board's actual position. Some clues are quite straightforward, based on compass bearings and distances, but a few are a little more cryptic, reflecting the points available to score. Before moving on, the marshal will sign each car's sheet as proof of their visit and finding the correct bird name. Unmanned controls are scattered across the area, usually between manned controls, and are situated in positions easy to see from the road.

When the entrants think they have visited as many locations as possible within the overall 4.5 hours allowed, they head back to Old Basing to have their scores tallied while they compare notes over supper!

This is an event appealing to everyone: from the dedicated Inter Register Club competitor, to the 'not quite so earnest' (but nevertheless keen) rallyist, or a family entering just for fun in their treasured historic, or possibly everyday modern car.

If you, or a friend, are looking for an evening's fun challenge, that's really different - give the 'Nightjar a go! Supplementary Instructions and Entry Form will be available on the NHAEG website, [www.nhaeg.org.uk](http://www.nhaeg.org.uk). Closing date for entries is 10<sup>th</sup> November 2018; meanwhile, put Saturday 17<sup>th</sup> November in your diary. For more information and to register your interest, please contact either:

Richard Long, Event Organiser, via email: [richard\\_d\\_long@hotmail.com](mailto:richard_d_long@hotmail.com)

John Pratt, Deputy Event Organiser, via email: [edmundjohnpratt@hotmail.com](mailto:edmundjohnpratt@hotmail.com)

**CLUB DIARY & EVENTS SEPTEMBER-DECEMBER 2018**

| <b>Events Organised by NHAEG</b> |                               |                                       |                                     |
|----------------------------------|-------------------------------|---------------------------------------|-------------------------------------|
| <b>NHAEG Events Planned</b>      | <b>2018 Dates</b>             | <b>Details</b>                        | <b>Arranged by, or details from</b> |
| Club Event                       | Sun 9 <sup>th</sup> September | Heritage Day Run                      |                                     |
| Club Night                       | Mon 10th Sept                 | Speaker: Beefeater Tony Strafford     | Denise/Jeanette                     |
| Mid-week Run                     | Thurs 20th Sept               | Country Lanes                         | Alan                                |
| Club Night                       | Mon 8th Oct                   | Shoebox Challenge                     | Don/Val                             |
| Club Night                       | Mon 12th November             | Auction Night                         | Colin/Don/Trevor E                  |
| Club Night                       | Mon 10th December             | TBC                                   |                                     |
| Event                            | Tues 4th December             | Christmas Dinner, Downshire Golf Club | Committee                           |

**Other events**

Please let John (edmundjohnpratt@hotmail.com or 01252 643527) have details of any events that NHAEG members might be interested in, to add to this compilation

| <b>Other Organisers</b>     | <b>2018 Confirmed or Expected Dates</b>  | <b>Events &amp; locations</b>   | <b>Contacts</b>  |
|-----------------------------|--|---|--|
| Beaulieu Autojumble         | Saturday 1st & Sunday 2nd Sept           | Spring Autojumble   | <a href="http://www.beaulieu.co.uk/events/international-autojumble">www.beaulieu.co.uk/events/international-autojumble</a>         |
| Shooting Star Chase         | Sunday 2nd September                     | 'Family Fun Day' display at the Children's Hospice, Christopher's, between Guildford and Godalming        | By invitation only - contact Phil Dunford <a href="mailto:phildunford@dunfords.co.uk">phildunford@dunfords.co.uk</a>               |
| Goodwood Road & Racing      | Provisional dates Fri 7th - Sun 9th Sept | Revival meeting (20th Anniversary)  | <a href="http://www.goodwood.com">www.goodwood.com</a>   |
| Heritage weekends           | 6-9th & 13-15th September                | Open days at historic locations   | <a href="http://www.heritageopendays.org.uk">www.heritageopendays.org.uk</a>   |
| Surrey Classic Vehicle Club | Sunday 16th September                    | Classic Vehicle gathering at Rural Life Centre, Tilford (500 entries in 2017)                             | Application form at <a href="http://www.surreyclassicvehicleclub.com">www.surreyclassicvehicleclub.com</a> or contact Phil Dunford |
| Basingstoke MG Car Club     | Sunday 23rd September                    | Doughnut Run: 65 leisurely miles through back roads & lunch stop. Start/finish at Milestones, Basingstoke | Adrian Walker or <a href="http://www.BasingstokeMGClub.co.uk">www.BasingstokeMGClub.co.uk</a> for entry form                       |
| West Green House            | Sunday 23rd September                    | Classic cars in a Concours D' Elegance at West Green House, Thackham's Lane, Hartley Wintney              | Book online <a href="https://festalticketkiosk.cloudvenue.co.uk/home">https://festalticketkiosk.cloudvenue.co.uk/home</a>          |

| Inter-Register Club Events | 2018 Dates        | Events & Locations                                       | Contacts as below, or talk to Trevor, Colin or Tony W for information  |
|----------------------------|-------------------|--|--|
| The Crossley Register      | Sun 23rd Sept     | Treasure Hunt North Yorks                                | Stephen Weld Tel. 01765 658569   |
| MG Car Club                | Sun 7th Oct       | Autumn "Naviscat" Kent                                   | Steve Cherry<br>stevecherry@virginmedia.com  |
| The Riley Register         | Sat 27th October  | Rally, Worcestershire                                    | Greg Nicholas<br>gregnicholas@hotmail.co.uk  |
| ATDC/NHAEG                 | Sat 17th November | "Nightjar"<br>Scatter/Orienteering<br>Surrey/Hants/Berks | Richard Long, Event Organiser, via email:<br>richard_d_long@hotmail.com<br>or, John Pratt, Deputy Event Organiser, via email:<br>edmundjohnpratt@hotmail.com |

### THE MEMBER INTERVIEW – MALCOLM RILEY

*This month we visit Malcolm Riley, who is a prolific collector and restorer of cars, with an extensive collection of small compression ignition engines, favoured by model makers. He has also collected the many variants of Dinky Grand Prix cars of the 1950s and model vintage petrol pumps.*

Editor: Did you always tinker with cars? Do you have an engineering bent?

Malcolm: As a boy I was interested in powered model aircraft which were made of balsa wood, covered in tissue and doped. 70 years later, I still collect the small petrol and diesel engines that powered this generation of model planes.

Editor: When did you first realise that you had an interest in cars (and how)?

Malcolm: I passed my driving test in 1960, in Wales, in a driving school Morris Minor. I then drove my father's Wolseley 6/90, which was the Police variant with the floor-mounted gear shift and my brother's Vauxhall Victor. I acquired a DMW trials bike which I used to transport myself and belongings between home in Shrewsbury and university in Aberystwyth. I once went to Cornwall on it and I once took a Norman trials bike to the Isle of Arran in Scotland – both trips proved to be far too long on a trials bike, although I did later take a BSA Gold Star CB350 to Spain!



Editor: What was the first car that you owned?



Malcolm: My first Riley purchase, a 1930 Riley 9, was encouraged by Jack Sutton, a mate at school. There were keen Riley people in the Shropshire area. I probably drove it too hard and broke the crankshaft. It was replaced as there were used spares around at the time, due to cars being broken up.

On one infamous trip to London from Shrewsbury, with the girlfriend at the time we met freezing fog and the inside of the windscreen iced up as well as the outside. (Incidentally we are still friends and she now

lives in Lyons.)

At one point, I had a Gardner diesel-engined Rolls Royce P2, followed by a Rolls 20 Hearse.







The Riley was sold for a 1928 Lea Francis Leaf Hyper, bought from a mate who worked at the Rolls Royce Sentinel factory. The car had been found behind a garage in a poor state and was used by the restorer for racing for a while after restoration. It had the Meadows 1.5 litre 4ED engine and I raced it. But it proved to be a great car for trials until, much later, it crashed on the way to an event. During this time, I had also acquired an Austin Hereford pick-up with a column change, a Lancia Augusta and an Allard M Type. I bought the Allard from an RAF chum and it was very torquey – it would go up the steep incline of Harley Bank on the A458, near Much Wenlock, in top.

Editor: How did you come to buy your first old Austin?

Malcolm: In the 1960s, I bought My first Austin which was a fabric bodied Austin 12. But as I didn't use it much, it got sold.

Editor: What other interesting cars have you owned and how did you come to buy them?

Malcolm: When I moved to London in 1963, I sold the Allard for a 1939 Morris 8, which I then found had a chassis repaired with Dexion! I also rescued an Essex Super 6 from a man in Littlehampton, but having got it going, it was sold. After I moved from Shropshire to TRL at Crowthorne, I met Wife No1, Felicity, at work. She had a new Austin 1100 and I had an AC Ace Bristol at the time. We kept the Austin as a practical car and sold the AC - a big mistake.



We also sold the Augusta and I bought a Triumph Model P motorbike (which I still have) and acquired an AC Ace Bristol, which needed some engine work.

During this time, I restored a 1926 Alvis 12/50, but I had to sell it to finance improvements to the house. Eventually the Ace was swapped for an AC Aceca with a 2.6 Ford unit with a Ruddspeed head - and the Austin 1100 gave way to a Citroen Ami 8 Estate which covered 100k miles, over several years.

After Wife No1 went, I sold half the garden of our Sherfield on Loddon home and that financed the purchase of a 1974 Porsche 911 Carrera Targa 2.7, with the 'duck-tail' spoiler. I had been using the Leaf a lot for trials, but having crashed it, I was encouraged to buy a Morgan 3-wheeler by a friend, 'as a replacement'. But it later turned out to have a cracked cylinder casting and anyway it wasn't my type of car – it was more of a cycle than a car!



I had the Morgan when I met Wife No2, Wendy, (as the crashed Leaf Hyper was still awaiting repair), but I managed to sell the Morgan after showing it at the Beaulieu Autojumble.

Probably at this point, as I had no old car on the road, I bought the 1930 Riley

9 Mk IV Tourer that I still have now, from a dealer. It was in a poor state, but suitable for long term restoration. After some chassis repairs, I initiated a local rebuild of the ash-frame body which took ten years, during which it had 4 long trailer journeys to the trimmer in Blackpool.



I also bought a 1929 Riley Tourer to use in VSCC trials in Wales. It was painted khaki, looking like a WD model, and had a noisy rear axle etc. This car had an auto vac and a rear tank, which is not ideal for trials, as when the auto vac took a suck of petrol, the power was lost for a moment - definitely not ideal on a trials hill! Finally, it stripped the valve train's intermediate fabric gear, resulting in the valves hitting the pistons with the expected results and the oil-pump drive failing.

During this time, I inherited a Triumph 2000. Meanwhile Wendy drove an MG Midget which was like a roller skate. I had met Wendy at the Beech Hill MG Garage, where she was changing a pair of shock absorbers. We bought a Leaf 2-seater and a fabric Lea-Francis saloon - and our son Andrew was born. But both the Leaf 2-seater, the Leaf saloon and the WD Riley had to be sold, to help finance the Coach House restoration.



So, after the vintage cars had gone, a 1933 Austin 10, AGU98, was bought for such roles as ferrying Andrew (our new son) to school. As the marriage ended, Wendy kept the Austin 10, although I subsequently bought it back to save it from leaving the family (and sold to Andy Ransom eventually).

The house in Sherfield on Loddon had to be sold, uncompleted, and a bungalow was bought in West Green. This house had a large chicken shed in the garden which I used for storing spares. When I later moved to my present house in Hazeley Heath, I moved this shed with me - not a job I could do now.



With my Leaf still undergoing repairs, I bought a 1929 Riley Monaco in very original condition, but requiring some engine repairs – and I still have this car. I was also attracted by the low price being asked for an Austin 12 with a fabric body. This is in 'oily rag' condition and I am still fettling it, but with the intention of keeping the patina of age.

As I approached retirement, I bought a Peugeot 307 for everyday transport.



Meanwhile, Wife No3, Sandra, had various cars including a Fiat X19, Ford XR2, a Passat and a red Vauxhall.

ends in half to transport it. It and Riley Monaco, as the Leaf garage!



Editor: Did you have enough garage space?

Malcolm: Luckily, the very big shed at Sherfield on Loddon came with me - although I had to saw the gable now houses the Riley 9, Austin 12 rebuild has filled my brick double

Editor: What has been your scariest experience at the wheel?

Malcolm: Undoubtedly, the accident in the Leaf, which could have killed me. The nearside steering link sheared, and the car shot up the grass bank and rolled through 360 degrees. There was nothing I could do, but duck down and hope! Luckily, as I was heading off to a trials event, I had two spare wheels mounted on the rear body and together with the large steering wheel, these gave me some protection. Needless to say, the car's body was completely destroyed – hence the 10-year rebuild. I am hoping to have it back on the road in about 6 months' time.



Editor: And finally, what have you enjoyed most about NHAEG?

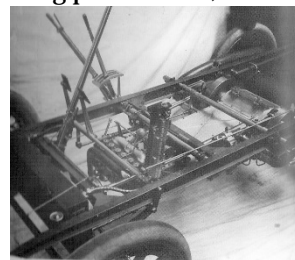
Malcolm: I also belong to the VSCC and Riley CC, but I have always enjoyed the NHAEG club holidays, the runs and the camaraderie of fellow enthusiasts.



## TECHNICAL MATTERS: THE HISTORY OF LEA-FRANCIS CARS

The fortunes of Lea-Francis Motor Syndicate Ltd. reflect the travails of the British motor industry - from its genesis as a cycle manufacturer, to a successful manufacturer of cars with sporting pretensions, struggling through the Great Depression only to fall into receivership just before World War Two. Finally, rising from the ashes of receivership only to meet its eventual demise in 1962.

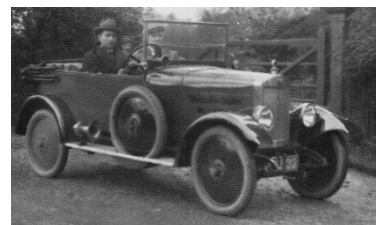
R. H. Lea and G. I. Francis had started as a partnership in Coventry in 1895. They branched out into car manufacturing in 1903, with the technical support of engineer Alex Craig, to make a medium-sized 3-cylinder car as Lea-Francis Motor Syndicate Ltd. Its long engine, 'weird' transmission and high price meant that it didn't sell. This company fell into administration owing £3,375.



The next Lea & Francis venture was in motorcycles in 1911, resulting in a high-grade, medium powered (JAP-engined) touring machine featuring silence, comfort and weather protection. It was a modest success from the start, enhanced by engaging in competitions. But War Office orders for WWI were won by Triumph and Douglas and many Lea-Francis staff were lost to the Great War.

Although motorcycle production resumed in 1919, the end of the war had prompted a strategic move back into car design, led by the next generation. Arthur Alderson was engaged to design a medium sized car, but it turned out to be heavy, ponderous and, compared to its main competitor the Austin 12, unsaleable. After several prototypes failed to attract interest and sales of the motor cycle were slowing, a crisis loomed. So, Lea-Francis built cars under licence for the Singer company and then started to build their own cars from tried and tested bought-in components.

The appointment in 1922 of Charles Van Eugen to design a light car was the turning point. Ninety 'C' type cars were sold at £250 (for a Chummy version), before a Meadows engine was fitted to create the 'D' capable of 50mph. This sold well against the Humber 8/18 at £250. However, the 'D' type was somewhat austere, and the more comfortable 'E' type was launched in 1924.

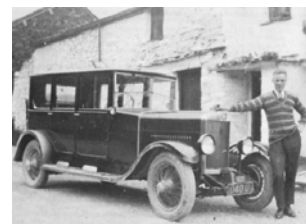


A sporting image began to appear from about 1925, with improvements in all departments, leading to models such as the Hyper using the robust Meadows 4ED 'Sports' engine and new Lea-Francis gearbox. The Hyper (also called the S-type) was the first British supercharged production car with its 1.5 litre



Meadows engine. Reliability trials' successes followed, with regular convoys of 'Leafs' seen in major events in 1925. The new company returned to profit, but margins were slim, fixed costs high and profit depended on volume. As Meadows became stretched by its success, Lea-Francis introduced the Anzani engine to the range, but unfortunately, Anzani fell into receivership, leaving L-F exposed with a large stock of engines.

From 1922, Lea-Francis had formed a tie up with Vulcan of Southport sharing both manufacturing and dealers. Further design developments proceeded, with a larger car being offered based on the Vulcan chassis. Vulcan also supplied bodies to Lea-Francis and in return got gearboxes and steering gear. Two six-cylinder Vulcan designed (and made) cars were marketed as Lea-Francis 14/40 and 16/60 as well as Vulcans. But at £395 for a tourer or £550 for a saloon, they were expensive.



Lea-Francis had become a public company in 1927 and Vulcan pursued a disputed £20,000 debt owed by them. Finally, their association finished in 1928 when Vulcan stopped making cars. During this period, Lea-Francis was enjoying huge success with racing, which had supplanted reliability trials and notably, in 1928, a Lea-Francis Hyper won the Ulster TT, a 30-lap race on the 13.5-mile (21.7 km) Ards circuit on the roads of Northern Ireland in the hands of legendary race car driver, Kaye Don. The race was watched by a record 250,000 spectators, and the victory placed Lea-Francis firmly on the map.

For 1928, Van Eugen designed a larger 'P' type chassis with improved suspension, brakes and Rudge wheels, but still featuring the Meadows 4ED, now with a single plate clutch. However, the Wall Street crash intervened. As sales slowed, the company was left with a stock of unsold vehicles and slipped into a loss, having only sold a total of 500 'P' types with various bodies, 38 12/50s, 81 Hypers and 59 'T' type 6-cylinder cars. Lea-Francis started to look for a partner to replace Vulcan, but was rebuffed by Bentley, Siddeley and Talbot. Van Eugen embarked on a new SOHC engine design as he sensed Meadows' development had lagged, and they declined to respond, perhaps suspecting all was not well. In addition, sales of the lower priced models were losing out to Riley, especially to their 'Monaco' which sold at £295, even though L-F responded with a Monaco look-alike, the 'W' type, which was offered at £375.



In late 1930, the 'Ace of Spades' 6-cylinder was launched with a new gearbox, to a warm reception, as sales of other cars declined, resulting in a further overall loss. By early 1931, the bank had intervened in the management of the company, as it was on the brink of insolvency, which happened in March. However, the receiver continued to trade on a more limited cash basis although support for the works racing team ceased – although privateers continued to enjoy success. Only 29 cars were sold in 1932, but a small profit was achieved. Van Eugen left and despite setbacks, the company continued to trade albeit at a steadily reducing level - until it was finally put up for sale in 1936 with the last car, a saloon, sold in 1937.

The company was then re-formed in 1937 under the chairmanship of George Leek with other ex-Riley men such as R.H. Rose who designed a new engine for Lea-Francis, which had a similar layout to the Riley 12/4. The 12 hp and the 14 hp (actually 12.9 hp) were introduced in 1937 and continued until the start of the war in 1939, when production ceased, and the factory concentrated on manufacturing for the war effort.

The Hillfields site was abandoned in 1937 when it was sold by the receiver and a new company, under a slightly different name moved to Much Park Street in Coventry. It survived there until 1962, when the company finally closed.

Post-war car production commenced in 1946 with updated vehicles based on the pre-war designs. The 14 hp Saloon and Sports were luxurious and sporty vehicles, and were popular, if expensive. Eventually, an improved chassis with independent front suspension and hydraulic brakes was introduced across the range.

In 1950 the 18 hp saloon and 2½ litre Sports, both with the more powerful 2½ litre engine, were introduced. Production once again came to a halt in 1954, after not having been present at Earl's Court since 1952.



A number of 14 hp Sports chassis were sold to Connaught Engineering where they became the L2 and L3 sports-racing cars. Connaught developed a Formula 2 racing engine for their 'A' type single seater which was based on the Lea-Francis design.



The final model produced under the Lea-Francis brand name was the Lynx, a tube-framed 2+2 roadster with a Ford Zephyr 2.6 litre inline-six engine. Unveiled at the October 1960 British Motor show, it was 'infamously' painted in mauve with gold trim.

But by the time of its launch, Lea-Francis was so financially distressed that they could not afford to build Lynxes unless they had been ordered. As none were, only three Lynxes were made, all prototypes. The motor manufacturing parts of the company passed into the hands of the receiver in 1962, leaving Lea-Francis to continue with their engineering business.



A total of almost 10,000 Lea-Francis vehicles had been made, until production ceased due to the Lynx's failure to capture the buying public's attention. The assets of the company were purchased by Quinton Hazell Ltd., a component manufacturer, while the Lea-Francis name was purchased by Barrie Price (who authored the authoritative book, *The Lea-Francis Story*). Price subsequently continued to provide service and spares for the surviving cars, and also built a number of retro Lea-Francis cars reviving the model name "Ace of Spades." These two-seat coupes have Jaguar engines.



In 1998 it was believed that the Lea-Francis name might yet be seen again on the road when a new Lea-Francis sports car by the name of the 30/230, designed by James Randle, was shown at the Motor Show. Compared with the Lynx, it was a good-looking car, but it was expensive and so only the prototype was built before the project had to be abandoned.

The Lea-Francis Owners' Club has an ever-growing membership of around 340 members who own around 420 vehicles.

### Lea-Francis car models

| Model Name                            | Engine                     | Year    | Production |
|---------------------------------------|----------------------------|---------|------------|
| 15                                    | 3,500 cc 3-cylinder        | 1905–06 |            |
| 13.9                                  | 2,297 cc inline-4          | 1920    |            |
| 11.9                                  | 1,944 cc inline-4          | 1920–22 |            |
| Nine (Type C)                         | 1,075 cc inline-4          | 1920–22 |            |
| 10 and 12 (Types D to O)              | 1,247 or 1,496 cc inline-4 | 1923–30 | 2350       |
| 12 (Types P to W)                     | 1,496 cc inline-4          | 1927–35 | 1700       |
| 14/40 (and Type T)                    | 1,696 cc inline-6          | 1927–29 | 350        |
| 16/60                                 | 1,990 cc inline-6          | 1928–29 | 67         |
| Hyper 1.5 Litre Supercharged (Type S) | 1,496 cc inline-4          | 1928–31 | 185        |
| 2 Litre Ace of Spades                 | 1,991/2,244 cc inline-6    | 1930–36 | 67         |
| 12 and 13                             | 1,496/1,629 cc inline-4    | 1938–40 | 83         |
| 12                                    | 1,496 cc inline-4          | 1946–47 | 13         |
| 14                                    | 1,767 cc inline-4          | 1946–54 | 2133       |
| 14 estate                             | 1,767 cc inline-4          | 1946–53 | 916        |
| 14 Sport                              | 1,767 cc inline-4          | 1947–49 | 118        |
| 14/70                                 | 1,767 cc inline-4          | 1948–51 | 162        |
| 18                                    | 2,496 cc inline-4          | 1949–54 | 69         |
| 2½ Litre                              | 2,496 cc inline-4          | 1949–53 | 77         |
| Lynx                                  | 2,553 cc inline-6          | 1960    | 3          |
| Ace of Spades                         | Jaguar inline-6            | 1980–90 | 6          |

## TECHNICAL MATTERS: DAMAGING CHANGES TO PETROL ARE IMMINENT

*Disclaimer: This article contains information and views expressed by third parties, mainly DfT, FBHVC, BP Australia Ltd and MV Consulting. It is not to be construed as the advice of NHAEG and NHAEG accepts no responsibility for the consequences of anyone acting on this information.*



### What has happened?

The Department of Transport (DfT) has recently issued a consultation document on the subject of introducing higher levels of ethanol in petrol. FBHVC is aware that this is a major issue for owners of vintage cars and it invited members to take part in a consultation in August this year, so that they can respond to the DfT's consultation on behalf of the whole historic vehicles' movement.

### Why should we be concerned?

This has serious consequences for us! If the E10 grade of petrol is used without modification to the fuel systems of older vehicles, they are likely to suffer more from vapour lock, damage to their fuel system and possibly dangerous fuel leaks.

The Government are proposing to guarantee a 'protection grade' of petrol at the E5 grade that is equivalent to the currently available 95 RON petrol only until 2020 – this is 2 years away! It is likely that, on the introduction of E10 at the 95 RON level, the currently available 'Super' grade with an octane level of 97 RON or higher, will cease to be available.

**The problems that we face are:** Many enthusiastic owners of classic motorcycles and cars have experienced engine operating problems using modern petrol. The cause is often wrongly attributed to the octane rating of modern petrol. Most users perceive octane as the most important property of petrol but in reality, the boiling range, or vapour forming properties, have the major influence on fuel performance. High octane petrol has no influence on combustion quality, or burn rates, in these engines. It is the effective ratio of air to vaporized fuel in the combustion chamber that matters.

Over the last 100 years the development of petrol and cars has gone hand in hand. Each engine was designed around the petrol which was available at the time. Petrol has changed, largely because of the pressure to produce greater volumes as the demand has grown. This pressure has resulted in a wider boiling range for petrol, with lower boiling point hydrocarbons and higher boiling point hydrocarbons. It is the addition of these light and heavy hydrocarbons that has forced changes in fuel system and carburettor design. Octane has gone up over the same period, but that is only to stop pinging [combustion knock] in high compression engines.

### Why is this change needed?

The recent changes to the Renewable Transport Fuel Obligation (RTFO) have increased the obligations on fuel suppliers to supply renewable transport fuels, such as biofuels, in the UK. These changes are designed to help the UK meet our domestic and international climate change commitments.

One way suppliers can meet their RTFO targets is by blending bio ethanol into petrol. The current petrol fuel standard, EN228, permits fuel suppliers to supply two types of petrol, containing either up to 5% ethanol (known as E5) or up to 10% ethanol (E10). To date, no supplier has sold E10 petrol on the UK market. However, it is widely available across much of the EU, the United States, Australia and Brazil, and more countries are expected to introduce it in the coming year.

### So, what is the DfT saying?

The option to supply E10 would help suppliers meet their obligations cost-effectively. However, possible incompatibility of E10 with some older vehicles means that the transition to the new fuel grade needs to be managed carefully, in particular by ensuring that E5 petrol remains available for those who need it. There are around one million petrol cars registered in the UK today for which the Manufacturer has not approved the vehicle for use with E10. There is also a significant number of motorbikes and scooters, as well as other petrol-powered equipment, which would need to continue being fuelled with E5.

While many of the vehicles affected are classic or cherished vehicles (over 25 years old), a significant proportion are still used as a main household vehicle. Figures suggest that at present around 450,000

of these cars are less than 25 years old, but this number will decrease rapidly as many such vehicles are expected to reach the end of their economic life over the next few years.

**The DfT is proposing two options:**

**DfT Option 1:** The Government's preferred option is to ensure that consumers retain access to 95 E5 Petrol while a significant number of E10 incompatible vehicles remain on UK roads. This would be achieved by amending the Motor Fuel (Composition and Content) Regulations 1999 (as amended) to re-introduce a protection grade. The protection grade would require larger filling stations to ensure that 95 E5 remains available should E10 also be sold. The requirement would only apply to those filling stations that supply at least two grades of petrol, and supplied at least 3 million litres of fuel in the previous calendar year.

This proposal is intended to ensure that consumers who need to use E5 to fuel vehicles incompatible with E10 would continue to have access to 95 E5 petrol (which is cheaper than the Super grade of petrol). This would be a change to the previous protection grade requirement, which allowed suppliers to use the more expensive Super grade as the protection grade. An implication of this proposal is that a complete market switch to E10 as the only 95 octane fuel, such as seen in Belgium in 2017, would not be an option in the short term.

We propose that this protection grade would apply until 31 December 2020 inclusive. This provides the short-term protection for consumers while also allowing us to consider how protection will interact with developments on E10. We anticipate that beyond 2020 a protection grade will continue to be required to ensure that consumers with incompatible vehicles have access to E5 petrol. How any protection grade that might operate post 2020 will be dependent on progress in relation to E10 as well as the continued reduction in incompatible vehicles. We plan to review the protection grade as part of further any consultation on E10 that would follow the call for evidence in this consultation.

**DfT Option 2:** An alternative protection grade would allow fuel retailers the flexibility to choose which petrol grade was maintained as E5 should they also sell E10. This approach would ensure that E5 remained available for consumers whilst providing suppliers with flexibility that might be more conducive for a market-led introduction of E10. The risk with this approach is that suppliers could (and probably would) choose to offer E5 only in the Super grade if they decided to introduce E10, effectively forcing some consumers to buy more expensive fuel. This could add 8-10 pence per litre to fuel bills of affected drivers, who would also in most cases not see the benefit of the higher-octane fuel, given the age of the cars. This option would therefore miss one of the Government's key policy objectives to protect consumers.

## THE EFFECT OF MODERN PETROL IN VINTAGE ENGINES

The effects of modern petrol range from poor vaporization in the carburettor to excessive vapour formation in the fuel system. Each problem engine must be studied with a clear understanding of the likely symptoms. All of the following problems have been reported but vapour lock appears to be the most common.

The possibilities are varied and may include the following cases.

1. Very early engines with wick or surface carburettors may suffer because the low boiling components may vaporize leaving the high boiling components to build up in the carburettor and hence lean off the mixture.
2. Some engines with simple carburettors that do not spray the fuel into small droplets may end up with unburnt high boiling fuel components going out with the exhaust. If the correct amount of fuel is added to the air stream but is not fully vaporized by the time combustion occurs, then this is effectively a lean mixture. The air/fuel mixture in these circumstances could be likened to that of a cold engine running with the choke on. A lot of fuel being supplied but not much being burned.
3. In later engines the problem may move to excessive vapour formation in the fuel pump and fuel lines (vapour lock). This is caused by the high fuel system temperatures vapourising the low boiling components in modern petrol. This is the common form of vapour lock which results in lean mixtures.
4. There are several ways in which excess vapour formation in the float bowl can cause a rich mixture or flooding. Pressure build up caused by inadequate venting of the float bowl can force excess fuel from the jets. Secondly, with some fuel system designs, vapour bubbles formed in the float bowl as petrol ejects



from the needle valve can cause foaming. The float then sinks in the low-density foam which opens the needle valve and floods the engine.

5. Another complex problem is that of ice formation in the butterfly area of the carburettor. In some vehicles the carburettors have inadequate heat input, particularly if exposed to the air stream [motorcycles]. The temperature drop as petrol evaporates can freeze moisture in the air stream. The ice can restrict the flow of air and/or choke the engine causing power loss or stalling. This can occur below about 14°C with humid or foggy atmospheres.

### THE EFFECT OF LEAN MIXTURES

To achieve complete and effective combustion, the fuel must be completely vaporised and the air/fuel mixture must be in the correct proportions. A lean mixture (insufficient fuel) burns slowly because of the wide spacing of the fuel molecules. Slow combustion leads to:

1. Overheating of the cooling system caused by the flame being there for a longer period.
2. Overheated exhaust valves, particularly if combustion continues after the valve opens.

### MATERIALS COMPATIBILITY ISSUE

The table shows the recommendations for different materials to be considered in use with either Ethanol or Ethanol/Petrol Blend Applications.

The realities of compatibility problems are that elastomers and plastics may swell, shrink or leak and seals may not live up to their name. The most common complaints will be petrol tank sealing failures.

The consequential effects of this will be leaks, blocked carburettors, fuel starvation, weak mixtures and engine damage.

Unfortunately, there is no quick fix or simple additive solution. The best route to take is to replace non-compatible materials with compatible ones. However, there are some preventative measures that can be taken, namely to replace tank sealing materials or (in the extreme case) to replace the tank.

| Material   | Recommended  | Not Recommended   |
|------------|--|---|
| Metals     | Carbon steel with post-weld heat treatment of carbon steel piping and internal lining of carbon steel tanks <sup>2</sup><br>Stainless steel<br>Bronze<br>Aluminium | Zinc and galvanized materials<br>Brass<br>Copper<br>Lead/tin coated steel<br>Aluminium (may be an issue for E100)   |
| Elastomers | Buna-N (hoses & gaskets)<br>Fluorel<br>Fluorosilicone<br>Neoprene (hoses & gaskets)<br>Polysulfide rubber<br>Viton   | Buna-N (seals only)<br>Neoprene (seals only)<br>Urethane rubber<br>Acrylonitrile-butadiene hoses<br>Polybutene terephthalate                                    |
| Polymers   | Acetal<br>Polypropylene<br>Polyethylene<br>Teflon<br>Fibreglass-reinforced plastic   | Polyurethane<br>Polymers containing alcohol groups (such as alcohol based pipe dope)<br>Nylon 66<br>Fibreglass-reinforced polyester and epoxy resins<br>Shellac |
| Others     | Paper<br>Leather   | Cork  |

## THE NATURE OF PETROL

*Editor: I don't know how you got on in the recent hot weather, but I experienced vapour lock with 95 Octane E5 fuel in our 1926 Chummy on hot days. It was especially bad on our return home from the BEN run in Windsor on Saturday 30<sup>th</sup> June. She ground to a halt twice and we had to wait patiently for over 45 minutes each time, with the bonnet off, for the engine and the fuel tank to cool down.*

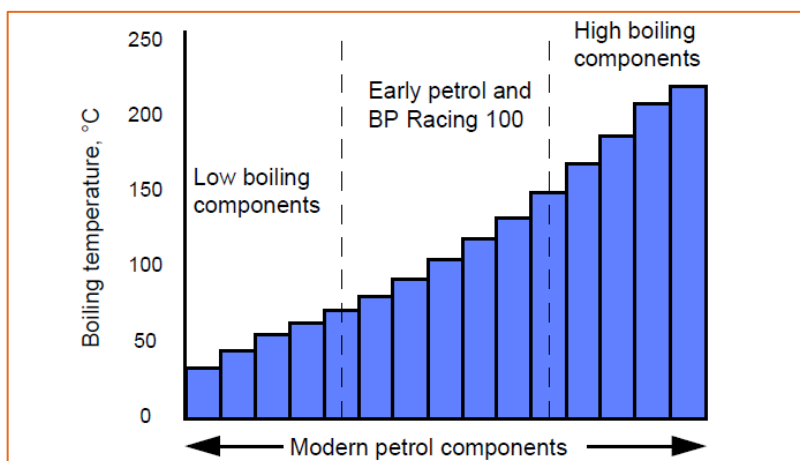
*Despite a heat shield over the exhaust pipe and the downpipe being wrapped, the lack of louvres in the bonnet sides of this model and its 2-bladed fan meant that the fuel in the under-bonnet tank was already hot before it reached the carburettor. (The tank was hot to the touch, which equates to a temperature in the region of 40-50 deg C!)*

The diagram illustrates how petrol is a mixture of many (even hundreds) of different hydrocarbons, each of which has its own boiling point. This means that a fuel boils over a range of temperatures, starting quite low.

In the diagram, each bar represents single component. In recent years high and low boiling components have been added to satisfy demand.

BP 100 Racing Fuel, or Avgas, has a narrower boiling range than normal petrol and it best approximates to the fuels produced earlier in the century, but is no longer readily available.

Source Document: PET0308.doc Page 1 of 2 Issued: February 18, 2005 BP Australia Limited



## NOSTALGIA CORNER – SUMMER HOLIDAY TIME



## PAST PRESS

Some advertisements and articles from the 1950s submitted by Andy Ranson, who reports that not much has happened down this part of the classic car world (*the South West*). Despite the good summer, the last 3 major car shows/events we have attended have been a complete washout due to heavy rain. They certainly know how to pick the right days down here!



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(DEPT. P.M.9) BOREHAM WOOD, HERTS. TEL.: ELStree 2021

### S E Opperman was

a tractor manufacturer in England. After he saw the Bond Minicar he decided to build his own four-wheel microcar at a factory in Elstree, Hertfordshire.

The first model was the Model T" Unicar, designed by Lawrie Bond and built between 1956 and 1959. It looked like a miniature two door saloon with 2+2 seating and was the cheapest car at the 1956 London Motor Show, but it was even cheaper if built as a kit when it could be had without engine for £170. A complete car cost £400.

The body was made in fibreglass mounted on a steel tube chassis and had neither bonnet nor boot lid. The engine was placed in the middle of the rear seating area giving two small seats on either side of the engine. Since it had no differential for the rear wheels they were placed close together.

The front suspension was independent using coil springs and struts, at the rear trailing arms were used. The brakes were mechanically operated. It was powered by a 328 cc Excelsior twin-cylinder, air-cooled, two-stroke engine giving 18 bhp (13 kW) and a top speed of 45 mph

(72 km/h). Some early models had an Anzani engine. About 200 were made.

The only other Opperman was the Stirling, but only two were made, built between 1958 and 1959. Much more stylish than the Unicar, the first had a larger 424 cc 25 bhp (19 kW) Excelsior engine and the second had a Steyr 500 cc unit. The brakes were now hydraulic and the rear wheels further apart. The launch of the Mini in 1959 wiped out the rationale for the Opperman and the Stirling never went into full production.

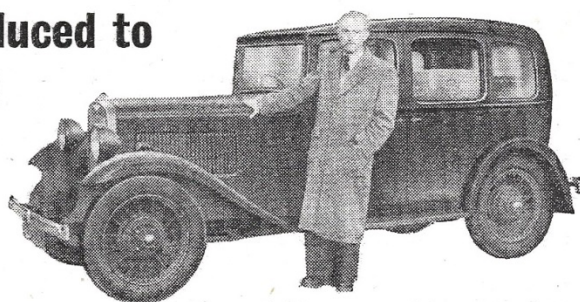


## Oil consumption reduced to $\frac{1}{2}$ pint in 750 miles!

Mr. F.W.T. Smith of Southdown, Bath is among many thousands of motorists who have checked excessive oil consumption and retarded further cylinder wear with Duaflex Oil Control Rings.

"Prior to fitting these rings on my 1933 Austin Light 12/4," he writes, "the consumption was at such a rate that on a journey from Bath to Scotland it was necessary to carry a 2-gallon can of oil for sump replenishment. Since re-ringing with Duaflex I have now done something in excess of 16,000 miles and oil consumption is approximately  $\frac{1}{2}$  pint to 750 miles!"

If your engine is worn and wasting oil, but has not yet reached the stage where a major overhaul is necessary through bearing wear, etc., Duaflex Rings will reduce oil consumption and postpone the need for a rebore. Ask your garage for further details and a quotation for fitting, or apply direct to Wellworthy Ltd, Lymington, Hants.



### WELLWORTHY **DUAFLEX**

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REDUCE OIL CONSUMPTION  
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#### How Duaflex Rings work



1 The vertical sealing spring keeps the rails firmly in the ring groove, forming a gas-tight seal.

2 The expander maintains an even outward pressure on cylinder walls, taking up irregularities.

3 The rails 'wipe' oil from cylinder walls, avoid scraping and wear.

For best results fit Wellworthy Pistons with matched sets of Wellworthy Rings at the same time as fitting Duaflex Oil Control Rings.

From June 1956, but the bigger threat was to come from Japan!

### FOREIGN COMPETITION

ACCORDING to a contributor to the *Evening News*, Heinz Nordhoff, the chief of the Volkswagen factory, plans to drive British cars off the road and he backs his men and his methods to beat our firms. We were told in this newspaper that the greatest single rival to the British car industry is being geared to still higher production in an all-out bid to snatch more export markets from Britain and other countries. Every 24 hours, 1,400 of this rear-engined car come off the assembly lines at Wolfsburg, and there are plans to increase the daily output to 1,750 within two years. No less than 33,000 people are employed in his factory.

It may seem strange to British people that a car emanating from a country with which we were at war for five years and which was largely responsible for our present economical and financial difficulties, can be produced at such a competitive price in so short a time, bearing in mind Germany's own economic plight. All competition should be fair, but if you are manufacturing motor cars, you do not help your competitor to drive you out of business. That, however, is exactly what we have done, for it was the British Occupation Authorities who appointed Nordhoff in January, 1948, as head of Europe's biggest car plant.

No doubt this decision is now regretted, because since his appointment 1,250,000 Volkswagens have been sold, and over half a million were exported to 103 countries.

Even with their present large output, they are in arrears with orders to the tune of 60,000. In the last eight years, Volkswagen prices have been cut six times, despite increases in the cost of raw material, and labour. Further price cuts are pending.



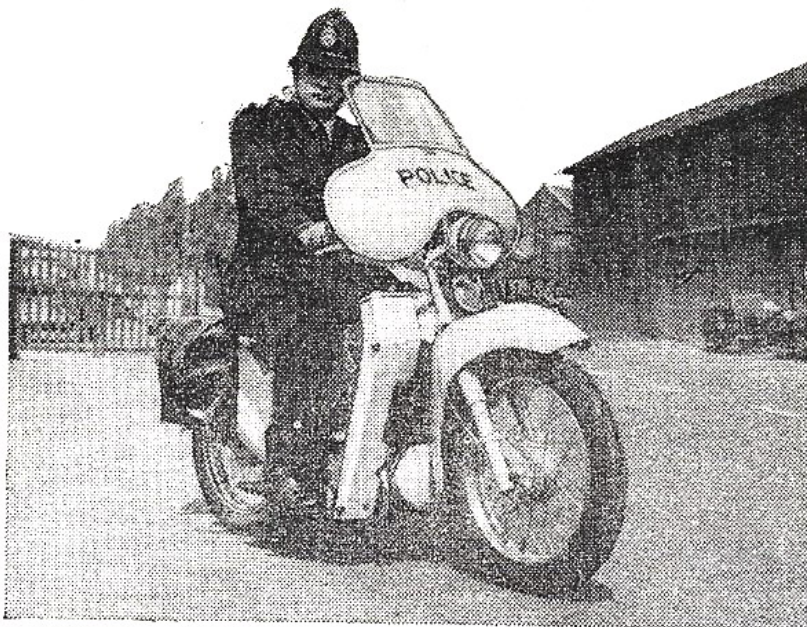
A useful dodge for an Austin clutch too but beware of the fire risk.

## Washing Out a Bradford Clutch

SIR,—For the information of W. M. Walsh, of Halifax (Our Experts Advise—July, 1957), Jowett and Bradford clutch bell housings have a large opening at the top through which several inches of the flywheel rim can be seen. Around this rim will be found four holes, about  $\frac{3}{16}$ in. in diameter.

If three of these holes are plugged with wooden plugs, petrol or preferably carbon tetrachloride can be injected into the clutch through the fourth hole, while the clutch pedal is depressed. The engine is run for a minute or two, operating the clutch, and the process repeated until the clutch is operating satisfactorily. Care must be taken when fitting plugs to ensure that they are not protruding enough to foul the bell housing when the flywheel is rotated, and are removed when the cleaning process is complete.—O. L. J. CARLEY (Bath).

Also from the late 1950s, the introduction of the “Noddy Bike”



To help the fight against crime in London, 400 constables of the Metropolitan police force are being given instruction on new lightweight motor cycles, for Scotland Yard's new “lightweight squad.” Members of this squad will be regarded as normal patrolling officers “on the beat” and they will patrol at slow speeds so that they can be easily contacted by the public.

**TREVOR'S QUIZ: "OUT AND ABOUT"**

*All answers are signs, objects etc., which may be encountered on the roads.*

- |  |           |       |
|--|-----------|-------|
| 1. A 60W bulb delivered by Royal Mail                        | — — — — — | 4, 4  |
| 2. Traveller's rule book written by Dick Turpin?             | — — — — — | 7, 4  |
| 3. Do you hear a single bell when on this highway?           | — — — — — | 4, 4  |
| 4. Is there a café at this road corner                       | — — — — — | 1, 8  |
| 5. It makes one's bottom appear red                          | — — — — — | 4, 5  |
| 6. Very tough top of the arm                                 | — — — — — | 4, 8  |
| 7. Very annoyed carriageways                                 | — — — — — | 5, 5  |
| 8. Display by the Red Arrows?                                | — — — — — | 7     |
| 9. Foul smelling area for hire vehicles                      | — — — — — | 4, 4  |
| 10. Nickname for test pilot John Cunningham                  | — — — — — | 4, 4  |
| 11. Send a wireless message to Warsaw                        | — — — — — | 9, 4  |
| 12. Play area for Fords, Jaguars, etc                        | — — — — — | 3, 4  |
| 13. Sounds like a multi-lane road where fights might be held | — — — — — | 4, 11 |
| 14. Instruction to remain a Socialist                        | — — — — — | 4, 4  |
| 15. This is a rubbish job                                    | — — — — — | 6, 9  |
| 16. Is one kept hanging about when crossing this?            | — — — — — | 10, 6 |
| 17. Clergymen cannot park here!                              | — — — — — | 3, 2  |
| 18. Lots of work of fiction                                  | — — — — — | 11    |
| 19. Once a children's TV programme                           | — — — — — | 10    |
| 20. Thank a Scot for the road surface?                       | — — — — — | 6     |
| 21. Dead calm at sea   | — — — — — | 5, 8  |
| 22. Change "Hi de Hi" star's surname for this                | — — — — — | 7     |
| 23. A free-kick can be taken from here                       | — — — — — | 6     |
| 24. Device for detecting a fast amphetamine                  | — — — — — | 5, 6  |
| 25. "Cowardly" stripes                                       | — — — — — | 6, 5  |

Name(s): .....

Please submit your entry, by hand or email to Trevor Edwards, 55 The Brambles, Crowthorne. Berks RG45 6EF by Friday, 9th November 2018. (email: [trevor\\_c.edwards@btinternet.com](mailto:trevor_c.edwards@btinternet.com))

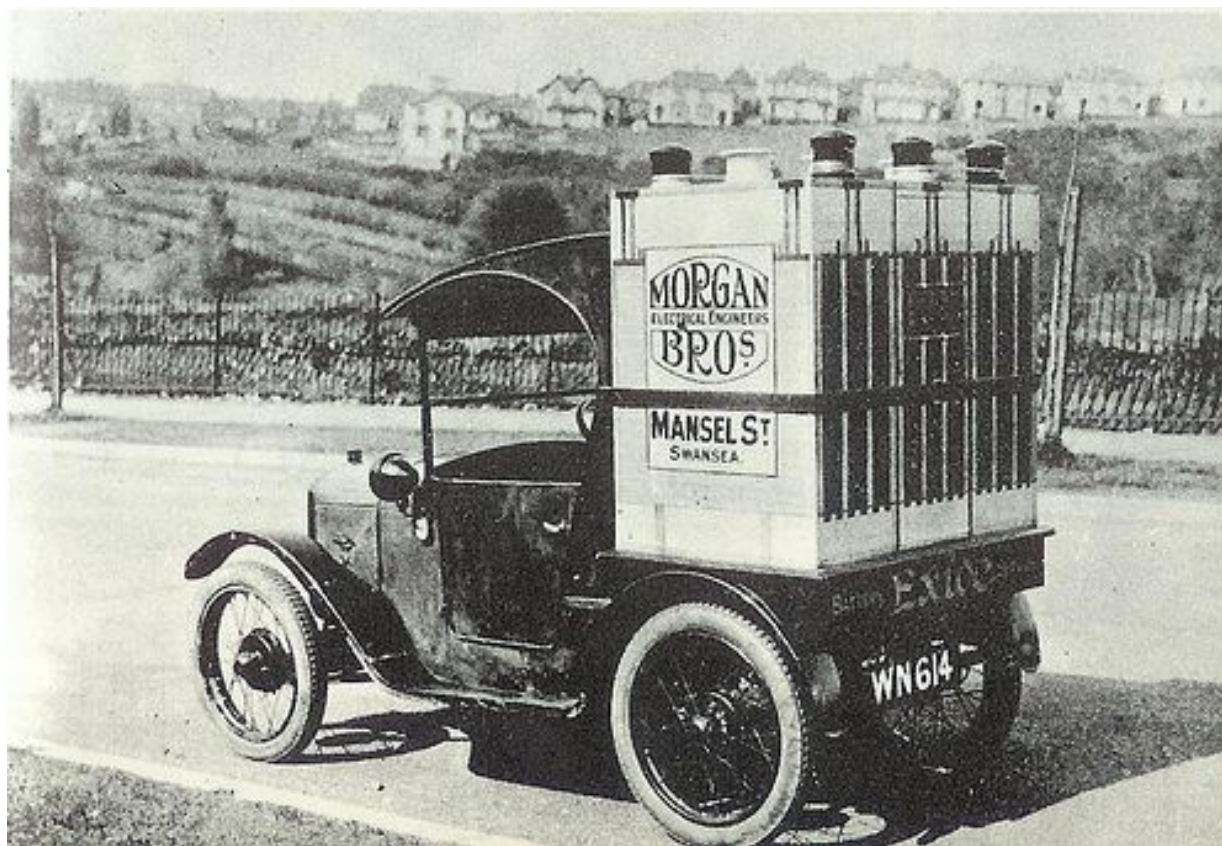
Don't forget to do this! All entries are being logged and the member(s) submitting the highest number of winning entries by the end of 2018 will be awarded a 'grand' prize!!!





### CAPTION COMPETITION

There will be a modest prize for the best caption... (email to: [edmundjohnpratt@hotmail.com](mailto:edmundjohnpratt@hotmail.com))



The best caption received for last month's picture was:

*(In this cold weather,)* "The only baby the two of us can manage will have to be the Austin".

Submitted by Malcolm Ryley.



**READERS WRITE TO AUNT BRASSICA...**



Dear Aunt Brassica,

I was invited to a picnic with some friends that I had met at the tennis club – that's me in the white dress, second from the right.

They said that they would provide the food, but under the table linen in the wicker picnic baskets were bottles of wine. I hadn't drunk this before, but it tasted nice and we giggled a lot. What food would you recommend for a picnic, please?

Yours, 'Hungry of Hartley Wintney'

*My dear girl, whatever were you thinking of? Wine is very intoxicating for a young lady and lowers her resistance to unwanted advances by young men. Imagine if a party of young men walking in the countryside had happened upon you, after hearing your shrill laughter.*

*I have enclosed a photograph that I took this summer when I went on a picnic with my three friends, showing the sort of leering man you should be wary of.*

*I think that you should prepare a hearty hamper next time with some nice ginger beer and fresh bread & cheese. Also, choose your location so that it is not isolated. You will still enjoy the countryside without putting yourself and your friends at risk of unwanted advances.*

*Yours, Aunt Brassica*

