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**THE MAGAZINE OF THE
LAGONDA CLUB**

Number 255 Winter 2017/18



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The Lagonda Magazine

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FRONT COVER: Douglas Fox's 16/80 on display outside a Chinese temple
in Penang during last year's Chinese New Year celebration

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From the Driving Seat

Roger Seabrook

A HAPPY NEW YEAR to one and all!

It seems that there are still cars out there that have been hidden away for years and emerge requiring full restoration. Take a look at the 14/60 described in this issue.

Some members are still happy to use very smart cars in the worst of winter weather, and all credit to them. The splendid M35R taking part in the Amsterdam 100 is an example, along with the 2.4 litre of the van Blaricum's which won an award.

In the early days of our 2 Litre ownership I used the car throughout the year, but I confess to now laying it up in the winter. This is only because of the ravages caused by salt, which appears particularly aggressive to nickel plating, and the German Silver radiator. Not only that, it damages the aluminium castings and you see rust appear in places you would not expect it to get into. The earlier cars, with their attractive swept wings, distribute muck all over the bodywork. When I eventually removed the wings I found the edges like colanders. This did result in me teaching myself lead loading, so there was an upside to it, I suppose.

We welcome our new Competitions

Secretary, Tim Parker, who has compiled a report on activities over the past year. It's good to see Lagondas (and Invictas) still doing well in circuit racing.

Perhaps we can get more reports on sprints and hill-climbs this coming year. The Rapiers usually do well at these.

The story of the IOE 3 litre engine continues, with Brian Stevens describing the test programme and results in this edition. His research has opened up hitherto unknown facts surrounding this project. It describes the difficulties in modifying the 3 litre engine to produce more power. The sole example of the Ricardo project will be an interesting comparison to standard 3 litres, once Brian has rebuilt it.

Perhaps an enlarged version of the 2 litre engine – maybe in six cylinder form to meet the requirements of the market in those days – would have been more successful. Or produce a bigger version of the 16-80. Of course the Meadows engine took over the six cylinder line-up in the end.

The 3 litre, however, remains a most attractive touring car with plenty of 'pull' on hills. And very handsome!

***Last date for copy for the Spring Magazine is
FRIDAY 23rd March 2018. Articles still needed urgently.***

The Performance of 1928 - 1933 3-Litre Tourers

Philip Mayhew discusses

WHEN WE STARTED farming near Alton in Hampshire in 1960 my next-door neighbour was Gordon Vokes, the well-known oil and air filter expert, and a brilliant engineer. Two of his Lagondas were regularly seen by local people in Alton.

He died in 1961 and his estate was put up for auction in 1963. My brother and I decided to put in a bid for his farm, and were successful. Before the sale we inspected the farmhouse and buildings. I noticed a splendid 3-Litre in one of the garages. Some years later this was bought by Robbie Hewitt, who carried out an excellent revamp of this car.

It was this particular car that spurred me on to advertise in The Lagonda magazine for a 3-litre tourer. John Scanes, a Club member, replied to my advertisement, telling me that his car was original and had not been 'got at'. I bought it for the asking price and journeyed over to Langdon Hills near Basildon in Essex, to collect it. On that long drive home the thing that surprised me about the car was how fast it was. Robbie Hewitt called her car 'Auntie' – was this because she thought it was rather slow (perhaps she was comparing it to one of her genuine LeMans M45s – Ed.)?

My car, although dated 1932, was really like a 1931 model. It had a much lighter chassis frame, which was the Z-type, confirmed by Ivan Forshaw when I first acquired it. Later cars had the heavy ZM chassis, which I understand were designed for the increasingly popular saloon cars of that time, with their heavier bodies.

They were also used on the tourers of this period. My car was fitted with the fabric-covered body, which I assume was much lighter than the steel panelled bodies fitted to the later tourers.

With regard to the performance of early 3-Litre tourers, there was an excellent article in The Lagonda magazine no. 195. It quotes Gordon Vokes describing how he raced his 1929 car, reg. no. UW6690, at considerable speed around Brooklands and again, driving this same car, at an even greater speed across Salisbury Plain. I don't know if either of these two road runs was timed. Was it from a speedometer reading, which could have been subject to error?

I understand there were some road tests on the 3-Litre cars, but they do not appear to have been as thorough as the later road tests such as those on the later cars (such as the M45).

I asked my near neighbour Richard Jones, a Lagonda expert, to take my car for a drive to see how well it pulled. We started up a longish hill, coming out of Marlborough in Wiltshire, and the car pulled well (this hill is a real killer for a 2-Litre! Ed.) . After this the car was driven at a steady 60mph. On a suitable part of the journey the speed was increased to a steady 70mph. At no time was the accelerator pedal fully pressed down. Richard was impressed by the car's performance.

My view is that these earlier cars were significantly faster than the later ones. What do other people think? ■



This 3-Litre is a superb example of the marque, and a credit to Philip, its long-term owner.



The 100 Miles of Amsterdam - Sunday 17th December 2017

Roy & Brigitte Callow took part

“An excellent meal followed by a great party with 5 hours of misery in between”

THIS IS HOW the organisers describe the event - and it's not far from the truth.

In summary, the 100 miles is an event for 60 pre-war cars starting from 6pm in Haarlem, and finishing from midnight onwards in Oud Zuilen, just outside Utrecht. The route takes in urban areas (central Amsterdam for example) narrow unlit rural roads and the occasional forest track.

The road book is available only 30 mins before your start time. It consists of marked transit points on maps of varying scales. The navigator can choose the route between transits. In most cases the route is obvious on the map, but following it in the dark on a small map is anything but easy. As my wife/navigator commented “we always seem to be on the wrong side of the canal”. Given the profusion of canals, this can be a problem. There are four “warm up” stops en route where coffee and hot soup are available without which there might have been a few cases of hypothermia!

But this is much more than a rally - it is a very social event which entrants are encouraged to approach with a sense of humour. The tone is set by the organiser's advance information “we have managed to find some spine-chilling dark roads, unpaved ones with the choice of hitting trees on one side and plunging into icy water

on the other, and some bear infested forests...in short we are sure you will have a lot of fun.” Clearly the Dutch and the British have a similar sense of humour. However, underlying the jest, there were serious warnings about the narrow roads and dykes - last year somebody skidded on ice and did end up in the water, fortunately with no serious damage apart, no doubt, from a bruised ego!

Out of the 60 starters there were 16 British entries, 6 from Ireland and 5 from other parts of Europe, the remainder being Dutch. There were no fewer than 11 Bentleys, mostly from the UK. Four Lagondas featured - two 2 litres, an LG45 and two 3½s - these being our own M35 R and a superb ST44 saloon. Other makes included Bugatti, Vauxhall, Talbot and Riley.

The event was won by a Dutch supercharged MG PB (1936) crewed by two genial Dutchmen who appeared far too tall to fit in such a small car. The bulk of their clothing only added to a slightly comic appearance - their shoulders were wider than the car! They had no weather equipment apart from two aero-screens (the same was true of some Bentleys). Given that it rained in biblical style from about 8.30, theirs was no mean achievement. No doubt a little local knowledge helped.

Along with a couple of other British crews, we had been persuaded to sign up for the event by Dutch friends whom we had met on the RAC



En route to Nijmegen on Saturday. The weather was partly sunny with frequent hail and rain showers - hence the sunglasses.

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1000 mile trial in 2016. We had a minor breakdown on one of the regularities and before we could attempt to fix it they kindly insisted that they should tow us to a suitable lay by. There is probably nothing that gives a Bentley driver greater satisfaction than towing a fellow competitor. If that happens to be a Lagonda the pleasure is doubly enhanced. There was, of course, much good-natured banter that followed.

We met again on the same event in 2017 and over a cold beer on a warm July evening we were persuaded to participate in the 100 Miles event. We probably flattered ourselves that we appeared sufficiently “hard core” to tackle such an event, but I suspect the truth is that they thought that we would contribute to the “craic” as my Irish navigator would describe it.

For us the event started on Friday evening with a crossing on the excellent Stena line service from Harwich to the Hook of Holland. Our host had invited a group of British crews (mainly Bentley owners) to stay at his house and at his adjoining hotel located at the rally finish in Oud Zuilen. We arrived late morning to a warm welcome and in time to join a drive to visit a steam engine restoration centre near Nijmegen. Here we were treated to a traditional Dutch meal of soup, cheeses, and ham - a hearty lunch on a cold day. We returned to the hotel that evening where we all enjoyed an excellent Indonesian meal - Rijs Tafel as the Dutch call it. A tasty legacy of Dutch colonial history.

The following morning we were all woken at about 8.30 by a small (4 piece) discordant band which paraded around the hotel and entered any unlocked bedroom, banging a large drum and blowing a loud trumpet.

This was the call to breakfast. Another example of the eccentric Dutch sense of humour of our host.

Scrutineering took place during Sunday afternoon in the old mediaeval square at Haarlem, alongside the traditional Christmas market. The arrival of this extraordinary collection of cars was welcomed enthusiastically by large crowds. One of the pleasures (lets forget the frustrations) of owning such cars is the almost universal appreciation that they attract. The gathering in Haarlem was no exception.

Our start time was 6.50. All went well for the first few kilometres, then we lost the plot and started to navigate by direction signs. By good luck we found ourselves back on the route, only to lose ourselves again - on the wrong side of a canal! On one occasion when we stopped to try to establish where we were, we were “apprehended” by two large Dutch policemen. We explained what we were doing and that we were lost, but they focused their attention on the car and did not offer to put us back on the route. At that moment a police escort would have suited us just fine, but they politely left us to our own (inadequate) devices.

In the road book the organisers, recognising the difficulty that some of us less talented crews might encounter, had suggested that we should take short cuts to the next soup stop. The absolute rule was that we must finish safely and be in time for the party which started at midnight. At first we felt a little reluctant to give in, but when we did so we encountered many other crews that had opted to do the same. Heavy rain, vintage lights and wipers on narrow greasy roads are a tough combination, and we felt no shame in putting safety first. So it was

that we arrived at the finish just after midnight.

The post event party went with a swing. A disco, and live performances from a singer and a jazz keyboard player kept the party going until 4 am, interrupted only by prize giving at 2am. We were in bed by 4.30!

Will we do it again next year? Almost certainly! For us this was

not so much a rally, but more of a weekend house party with friends and acquaintances with whom we could share the experience and confess to our short cuts over a beer or two.

It was indeed “five hours of misery” but there is nothing like a bit of shared adversity to help a group to bond and create a memorable weekend. ■



The purposeful stance of the 3 ½ Litre. Good to see such a smart car used in all weathers!



On display in the rotunda of the Royal Automobile Club, London, in October 2016 after it had won the Concours d'Elegance award on the RAC 1000 Mile Trial of that year.

A 1930s reincarnation of an early Lagonda

Mike Dufton is restoring an interesting modified 14/60

MIKE DUFTON CONTACTED your Editor about an interesting car he had acquired. This article is compiled from the correspondence we had in early 2017. It is quite unusual these days to find a vehicle that has not been run for so long, and it is of great credit to Mike that he has taken on such a difficult restoration. Nowadays, with modern assembly methods, we expect a 10+ year-old car to still have sound bodywork and to be useable every day, even if it has spent all its life outside. As late as the 1980s such cars were often scrap, as they rusted beyond economical repair. Certainly in the 1930s saloon bodywork of such an age was likely to have fallen to bits, especially if it was fabric covered. So a sound chassis could have been married to a surviving tourer body as in this case.

Maybe the body came from an accident-damaged car where the chassis had been written off – who knows? Here is Mike's story so far:

I HAVE BEEN reading 'From the Drivers Seat' in the Spring 2017 Lagonda Club Magazine noticing replacing the two camshafts in a 2L engine, and have made the assumption that these items have been obtained from the Club Spares. I'm currently restoring a barn condition 1927 Lagonda 'Tourer', with the engine being the centre of attention at the moment. This car has had a chequered early career, having started life as a 14/60 saloon but, in circumstances unknown, was rebuilt as a 'Tourer' in the late 1930s utilising the original chassis and parts from a

'Speed' model (including the engine) and LC T2 body. A bit of a mix, but it all seems to look the part. The car's reg. is ETV 199, not it's original one, but that of 1938.

The camshafts are worn out, and for some months now I have been trying to determine what profile the new cams listed as VLV 212 are, whether standard 14/60 or Speed model. From the data I have, the Speed Model cams not only vary in the valve opening duration but also in valve lift, which could make a considerable difference in engine power output. Comparing the Newman cam specification sheet with that shown in the car's original handbook reveals opening durations identical to the Speed Model engine rather than the standard OH model, so I feel confident that VLV 212's will be fine.

I have attached a few photos, firstly relating to the block repair, and secondly, the car as acquired, and the current situation regarding its restoration.

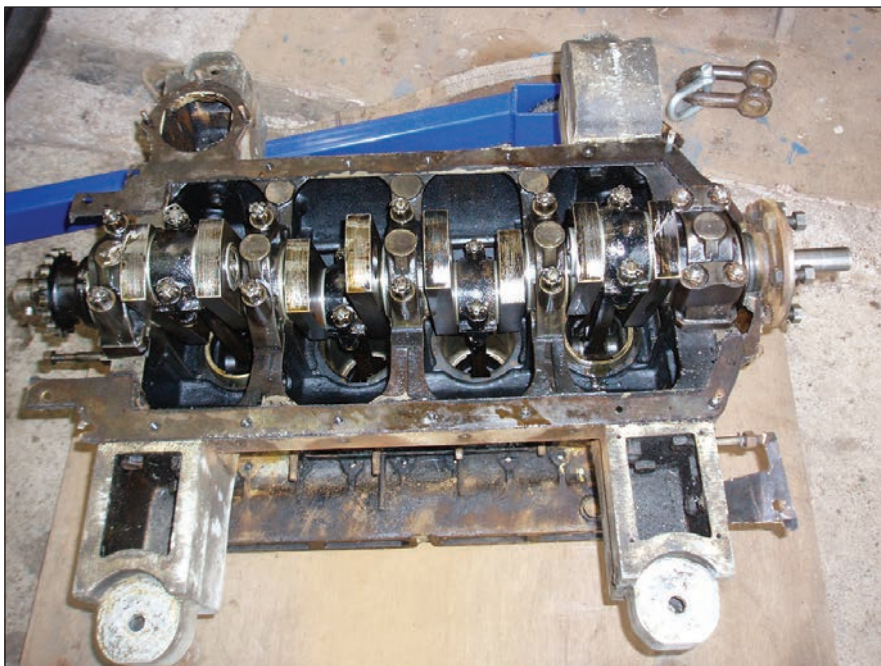
Dealing with the cracks and other corrosion damage, it will be seen that a vertical crack initiates from under the inlet camshaft tunnel to the inlet tract. At 90 degrees to this there is a second crack running horizontally for approximately four inches. These appear to be the result of frost damage suffered at least 50 years ago, as the car had been drained and left in a somewhat damp barn for that period. The vertical crack appeared to have been repaired by what looked like linseed window putty and copious coats of paint, which may well have



The damage to the nearside water plate mounting holes.



Cracking near to the inlet port.



The bottom end of the engine. Notice the broken lug on the no. 3 main bearing cap.



Moving the car in April 2015.

worked, as there were no visible signs of staining caused by coolant leakage. Also visible in this photograph, and the subsequent one, is the damage to the ¼" BSF water plate attachment holes. This has been caused not only by corrosion, resulting in reduced depth of casting below the tapped holes, but also by subsequent removal of the fasteners, the swollen corroded end protruding into the water gallery has expanded the thread causing 'break out'.

Cast iron or bronze welding may achieve repair to the water plate holes, but there is concern about possible distortion or further cracking induced by the process. As to the block cracks, I have contacted three specialist firms, one which did metal stitching only, from whom I did not receive a reply, Slinden Services Ltd, Measham, who provided me with a very comprehensive quote, and currently, I am awaiting a response from Formhalls. Slinden advised that only fusion welding was recommended for this particular repair, with subsequent re-machining of the block being necessary to overcome the inevitable distortion. Whether this would then mean oversize camshaft bearing housings to be fitted etc. is not clear, but it is not a route that appears attractive. It is also very expensive.

Another concern is that the engine has had, just before it was laid up, a complete bottom end overhaul including crank re-grind, new white-metalled mains and big ends, liners and pistons and, apart from some seized piston rings, appears in very good order. Welding distortion would not improve this! In preference, for the cracks, a purely mechanical method of repair would be best, or

leave them alone and use a proprietary metal bonding agent.

The other photos show the car when acquired and the current point in the restoration. Unfortunately, when acquired by the previous owner in the late 1950's, the complete braking system was dismantled and some engine components had been removed but never reinstated.

Most of these parts have been lost or corroded beyond serviceable use, including all the wheels. As is always the case, the current photo hardly conveys the hundreds of hours spent getting it to where it is, sourcing missing parts, machining new ones and researching. Undoubtedly it will take some years to complete a 'nut and bolt' rebuild, and we haven't got near the body yet! But the thought of driving it on the inaugural run keeps us going!.

The chassis, being that of the 14/60, does not have the additional cross member situated just to the rear of the compensating box. The radiator also sits directly over the front axle beam, again pointing to 14/60 parentage. Certainly some 'adjustments' have been made in the fitting of the body to the chassis, but have not affected the general aesthetic lines of the car. Some metal work is still in place for the original OH position of the battery box, but (one assumes on conversion) a now heavily corroded battery box is situated on the nearside, parallel with the gearbox, as per the 'Speed' model.

Looking again at the water plate threaded holes whilst cleaning the good ones with a ¼" BSF tap, I visualised making up a short 3/8" diameter flanged headed insert, threaded ¼" BSF internally, inserted from the inner side of the waterway in

the block, and bonded with superglue or similar. Fortunately I have my own well-equipped 'machine shop', a subject I have been involved with most of my life, and so the repairs could be done 'in house'. Another alternative is to attach a steel plate behind the current cast iron wall along the full length, secured by maybe three additional countersunk screws. This would allow the broken out threads to be extended into the plate for security, using a proprietary filler to ensure a flat sealing surface on the outside. The additional plate sizing would be minimized to reduce the chance of impeding the water flow around the block. No doubt if I keep thinking about this issue other solutions may spring to light!

Certainly another block in good order would be the ideal solution, but I suspect these are a major expenditure. I believe Wessex Workshops cast some new blocks at some time. In reality, virtually every problem is solvable at a cost, and I'm sure this particular unit has similar problems to many others. One other issue that has come to light is that a portion of the

centre main bearing cap has broken off. This is visible in the attached photo (number 3 is stamped on the crankcase strengthening web, which should not be visible, normally covered by the cap). On examination, it looks as if it has been broken a long time, but I've yet to fish in the sump to see if I can find the missing piece. I suspect attempting to fit the cap the wrong way, the holes being purposely drilled off-centre to ensure it can only be fitted correctly, caused the damage. However, someone who is unaware of this feature may just think it's a bit tight, give the nut one more turn and, sure enough, the casting, with its machined register, breaks off. Clearly, the engine has been run for a short while like this, but the lateral forces (and alignment) are now absorbed by the securing stud and nut, at least in one direction. The chances of finding another cap which has been line bored in exactly the same alignment is probably remote, the alternative might be to line bore this one with another cap, slightly oversize, and machine the bearing to fit. Alternatively, just leave it alone! ■



The car awaiting restoration in its new garage. A lot of hard work to do!



The rolling chassis looking very smart - an impressive rebuild.

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Competition Round up 2017 Season

Tim Parker our new Competition Secretary reports, with input from long-term competitor Tim Wadsworth

I AM DELIGHTED to be writing my first annual round-up as Competition Secretary; albeit having stepped into the role as recently as November last year I can take no credit for the successes of 2017! As a Lagonda competitor and club member I am enormously grateful to my predecessors Tim Wadsworth and Richard Reay-Smith for their huge efforts on my behalf; they leave sizeable fire-proof boots to fill.

I have been around Lagondas for most of my life thanks to my late father. Early involvement saw me, aged about 5, supervising a swap of Rapier parts with Chris Wiblin and his father Ellis. That was in 1974. The Rapier remained in my father's ownership until the mid-80s when distractions from other marques took over for a few years. In the early 90s I remember well visiting Peter Jones's workshop to help collect a newly purchased 2 litre for restoration. This car gave way to VR5110, another 2 litre which he completed shortly before his death and which I have raced now for a few seasons. While my father completed VR5110, I assembled the parts for a 2/4.5 special which was realised with the help of Paul Rogers in Odiham.

I have competed in historic motorsport since about 1999; AMOC Curborough sprint being my first outing in an Aston DB2/4. I competed in that car until 2009 when it was sold to fund the 2/4.5 project, GN421. I had enjoyed the Aston, always driving to the races including a trip to Pau in 2007, but the itch to compete in a pre-war car had become irresistible; where

better to pursue that ambition than behind the wheel of a Lagonda? So far Lags have provided two competition high points: a shared drive in Andrew Howe-Davies' ex-Brooklands 3 litre at the Benjafields 24 hour race at Portimao in 2014, and a race in VR5110 at Angouleme in 2015, as ever motoring there (just!) and back (trouble-free).

As I write in early January both cars are hors de combat; the GN421 in a rather long-term engine rebuild type of way, albeit I have ambitions to see it running again by the end of 2018. Meanwhile following a recent seized magneto in VR5110, which led to a loss of cam timing, I am in the process of finding out where the damage has ended; I am hoping just a few bent valves...

By the time you read this I intend to have been in touch by email with all "known suspects" in the competing Lagonda world, but if you have not heard from me and would like to be in the loop, please do get in touch at: timothyparker@hotmail.co.uk or mobile 07966466605. I have also set up a Twitter account in my name but with the tag name @lagondaracer which hopefully will generate interest in and for our competition endeavours. I am not a Facebook fan but open to suggestions if people would like to communicate in that way, ditto WhatsApp! Whatever your chosen method of communication I would be very interested to hear from you whether you are a current, lapsed or intending competitor in any form of Lagonda motorsport.



Andrew Cheyne's 3/4 1/2 Litre in the pits at Goodwood.



Nick Morley at Oulton Park.

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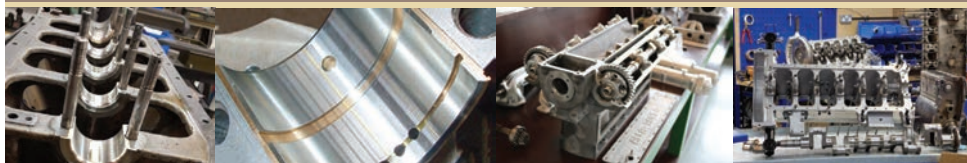
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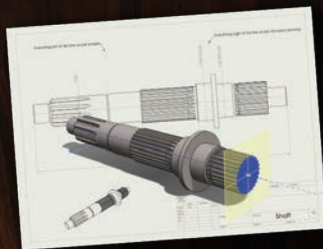
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Before I can look forward to the 2018 season however I need to review the season just passed. I am very grateful to Tim Wadsworth who has sent me the reports from the newsletters in 2017 to jog the memory. The racing season opened on April 22nd with the Silverstone Spring Start Meeting (now called Formula Vintage Round 1). In race one, the Fox and Nicholl, Richard Reay-Smith just edged out Trevor Swete in 19th and 20th places respectively while Nick Morley was 27th. Tim Wadsworth was 23rd out of a field of 27 in his race. On 13th May a small grid at the AMOC's Oulton Park meeting had only one Lagonda entry, Richard Reay-Smith who came 7th. Trevor Swete started in his Invicta, but sadly failed to finish.

The Brooklands Double 12 was better attended. 'Team Lagonda' consisted of Nigel Walder in his M45, Andrew Cheyne in his 3 ½ / 4 ½ special, Christopher Rhys-Jones in his Lagonda Rapier special, Annette van Wortel in a Lagonda Rapier, and Ralph Wienrich in a Lagonda Rapier Special. In the driving tests Martin Tinsley, with his 2 litre, managed to finish ahead of Michael Drakeford in the M45, who suffered badly from the restricted space between bales. The only Lagonda to take part in the Concours was that of Michael and thus also the only club car having entered two events and so applicable for the overall Double Twelve. However, coming overall 31st out of the 41 eligible cars was not the most pleasing of results.

Earlier in June our Northern contingent had been out in force at their "local" event, VSCC Oulton Park, supported by a few from the South.

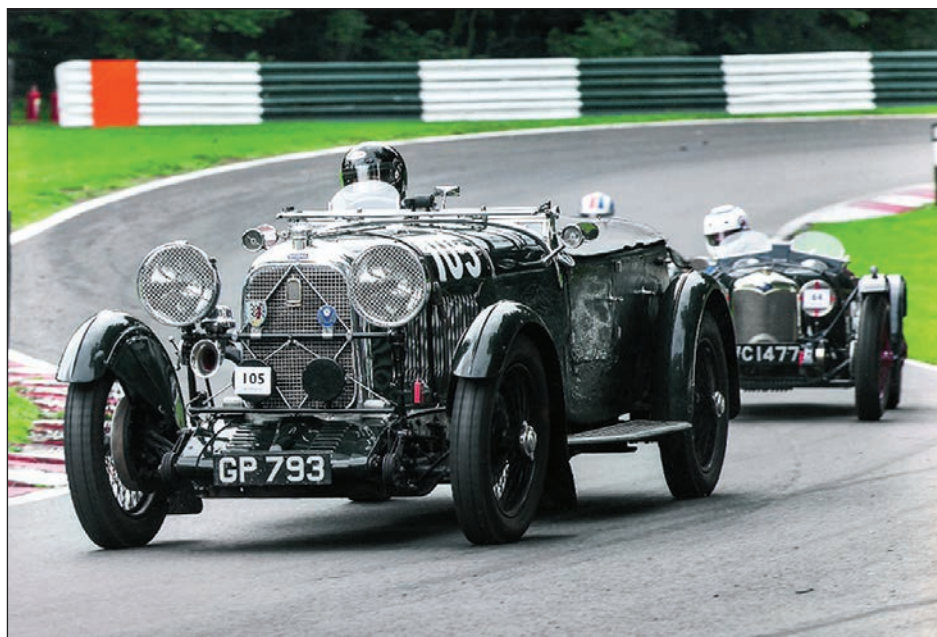
Mark Butterworth (V12) did well to come 4th having started out 8th on the grid. He was followed by Trevor Swete (Invicta) 6th and Nigel Hall (LG45) just ahead of Richard Reay-Smith, who had performed the "spin of the day", in 10th and 11th places. Tim Wadsworth (2 Ltr) was 19th and Nick Morley (LG45 Sp) 14th in his race. Later that same day John Abel (LG45), with navigator Andy Pullan, came 2nd in the experts class in the day/night Targa Oultonian Rally while Tim Wadsworth (2 ltr) with Brian Green as navigator managed 4th in the novice class.

In July the new two-day format at Shelsley attracted two Lagonda entries and gavetimeforthreetimedruns. Terry Brewster put up a good performance but the handicappers know him too well! Andrew Cheyne is also at a disadvantage having to compete as a special. At Cadwell Park we only had one Lagonda entry, Tim Wadsworth's 2 litre, but the handicappers were more generous (TW being far too modest here I suggest...) and Tim came in first on handicap in the Geoghegan Trophy Race and 10th in his second race. At the end of the month the spectacular Silverstone Classic meeting, club member Trevor Swete entered his trusty Invicta S-Type and came 27th in a very fast pre-war sports car race run on the full GP circuit.

August brought the iconic Prescott weekend. The meeting was as good as ever with the usual Lagonda picnic in the car park, but rather fewer cars on the hill. Tim Wadsworth and Terry Brewster competed in the Sports Car Classes but both were outpaced by Andrew Cheyne's 3.5/4.5 in the Special Sports Car Class, although none took away any silverware.



Richard Reay-Smith at Zandvoort.



Tim Wadsworth at Cadwell Park.

The other long-standing event in August is the BDC meeting on 5th. Earlier in the year it was thought that there would not be an All-comers Pre-war Race, however perhaps as a result of the representations of my immediate predecessor, there was a pre-war Bentley and others race. Unfortunately only one Lagonda was entered, Nick Morley's LG45, who came 21 from 25. The VSCC circus moved on to Mallory Park on the 12th where Tim Wadsworth, Nick Morley and Trevor Swete competed. Trevor experienced more bad luck in his Invicta when he had an unfortunate coming together with a Frazer Nash at the hair-pin - no personal injury but the race was "red flagged". Tim came 21st in his race and Nick was 9th in his.


During September Club members were successful on both track and hill. At Snetterton Nick Morley triumphed on handicap in his race and at Prescott on the long course, Paul Tebbett in the LG45/M45 also took away the handicap prize. Only Andrew Cheyne missed out on a pot; better luck next time. In rather more gentle competition at the VSCC Madresfield Driving Tests, Mark Yeoman's 1923 11.9 2-seater tourer gained a 1st Class Award, 2nd in Class B and came 5th overall out of 66 entrants. It is a long time since a Lagonda Light Car has appeared in any result sheet for a VSCC event and it was the only Lagonda entrant.....so the light cars kept Lagonda's end up at what was the 70th anniversary event. Mark went on to win Best in Class and the Ladies Choice at the Annual Gathering.

October brought the final speed event of the year, the Rockingham Sprint (replacing Goodwood) where Nigel Hall LG45, furthered his successful season gaining a 2nd on

handicap. Earlier in the month at Castle Combe, Trevor Swete's race ended early when his Invicta lost a wheel, bringing out the Safety Car, but Tim Wadsworth's 2Ltr finished 24th from a field of 25. In the season's results for the ODM series Trevor was 1st in the over 3-litre class, with Mark Butterworth V12 3rd, and Tim 2nd in the 1501cc to 3 litre class. Congratulations to all of you.

The season finished with the Driving Tests at Bicester Heritage which I attended mainly to get my race licence medical. In addition to the medical, I was pleased to pass the new agility test. For the uninitiated the participant has to demonstrate an ability to exit a given car within 7 seconds. My task was made considerably easier, as I am sure it would for any confirmed Lagite, by the subject car being a Riley special. We are very lucky to have a group of doctors and opticians willing to devote their Saturday to this task and the VSCC raised almost £7,000 in donations. ■

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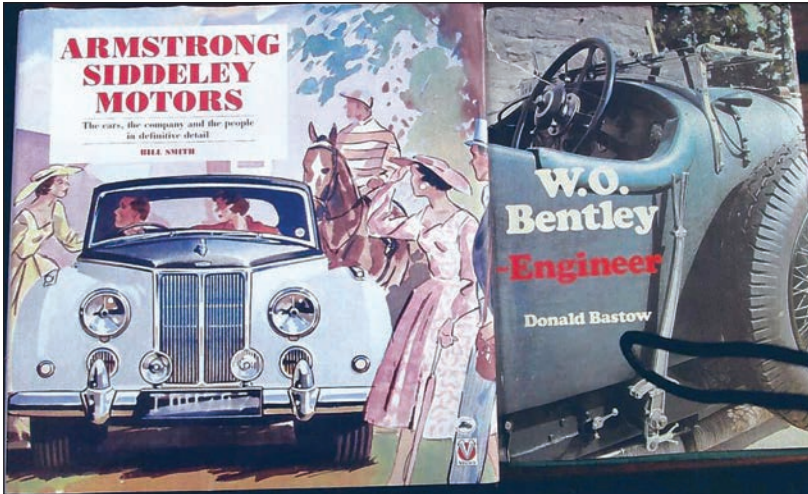
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Bentley after Lagonda

Arnold Davey looks at WO's career after parting from the David Brown organisation



EVERYONE KNOWS THAT W.O. Bentley fell out with David Brown very shortly after the latter took over Lagonda in September 1947. He then set up an independent consulting engineering practice in Weybridge, taking with him Donald Bastow, who had been responsible for the chassis of the 2.6 litre, and Don Keightly, an experienced designer-draughtsman from the Lagonda drawing office. By October he had won a commission from Armstrong Siddeley Motors to design a 3 litre car, starting from scratch, as an additional model to their existing range and perceptibly more sporting than anything they had so far produced.

I have recently got hold of the monumental history of Armstrong Siddeley, written by Bill Smith and published by Veloce Publishers in 2006. It is a huge book of 494 10inch

square pages and originally sold for £75 but has now been remaindered. In there is a special chapter on the Bentley association and what came of it. It is chapter 11, pages 405 to 415.

The approach to W.O. came from Mervyn Cutler, then ASM's Chief Engineer, who fancied a change from the then current range. Armstrong Siddeley had got back into peacetime production in early 1946 with cars virtually the same as their 1939 models, save for headlamps in the front wings. They were generally thought of as underpowered, as bodywork kept getting heavier, with more luxury, while engine power stayed constant. Cutler had no wish to drop these, but wanted to extend the range to gather buyers who would not have contemplated the staid cars. Bill Smith notes that right from the start there were misunderstandings

in that W.O. thought he was to design a complete car while ASM thought it was only the engine and chassis.

The details of the contract are interesting. Bentley was given £6,500 a year, out of which he was to pay four assistants and arrange office accommodation. He got a free loan of an Armstrong car and travelling expenses while on ASM business. Drawing office equipment and materials were also provided.

Bentley and Bastow naturally took the Lagonda 2.6 as their starting point and the chassis design owes a great deal to it. Remember that this is late 1947 and Lagonda had no production cars yet. The first change was to enlarge the engine to 3 litres by increasing the bore from 78mm to 84, realising that the changes to the 2.6, brought on by having a coachbuilt rather than monocoque body, had put the weight up by 5 cwt (254 kg), and it was now not as lively as originally envisaged. Nor had the LB6 engine produced as much power as expected. But ASM insisted on a beam rear axle with leaf springs. When W. O. objected, it was agreed he should also produce designs for completely independent and De Dion axles, both regarded as heretical in Coventry.

Nearly all the design work was done by Donald Bastow, who had only arrived at Lagonda after most of the LB6 engine design was finalised and he had strong views on simplifying it where he could, starting with the elaborate and expensive timing chain/auxiliary drives. He managed to re-design from nine sprockets and three chains to five sprockets and one chain. He was also unhappy with the three-bolt main bearing housings, arguing that the clamping force was uneven.

The carburettors were moved to the offside of the engine to give more room for the steering gear and reduce the heat on the driver's feet.

Armstrongs were keen to try only one carburettor but Donald scotched that. He did however abandon the Lagonda 10mm sparking plugs because the heat range offered by the manufacturers was not sufficient, so that a plug that was fine for high speeds would soon foul in traffic. My personal experiences with an AC Ace-Bristol confirm this.

When it came to the chassis, the coil spring and wishbones layout of the 2.6 Lagonda front suspension was more or less carried over but the ASM demand for a beam rear axle meant extended side members to accommodate the long leaf springs. As a result, when the independent version was produced it differed considerably from the Lagonda version. There were still inboard brakes and long torsion bars but no monster tubes. Instead, a twin wishbone set-up looked more like those produced today. For the De Dion version, the chassis frame was narrowed to allow trailing arms outside the frame and a Panhard rod located the beam laterally.

W.O. had a great admiration for the Cotal gearbox and proposed to use it on this car, much as on the original 2.6, but with the reversing gear train incorporated in the main gearbox and not attached to the rear axle as on early 2.6s. Again this ran counter to ASM's prejudices and a request came through for an all-synchromesh manual gearbox as an alternative. Not only that but, showing their ultra-conservative thinking, it was to have only three forward speeds. But they did concede the epicyclic principle

by asking for a third version using a Wilson epicyclic gearbox coupled to a Newton-Bennett centrifugal clutch.

Donald Bastow wrote a highly technical book, *W. O. Bentley—Engineer* (Haynes 1978) in which he described in great detail both the Lagonda and Armstrong Siddeley design process. (I was able to help with the pre-war Lagonda bit). Bill Smith has been able to quote from it but also has had access to ASM archives which give the other side of the story. In August 1948 they were writing to W. O. complaining of slow progress, ignoring the constant barrage of extra requirements Bastow had been subjected to. ASM were at the same time testing an equivalent 2.6 litre all-alloy pushrod engine designed in-house.

By January 1949 a 3 litre engine was in existence and placed in a chassis for testing. The chassis was an existing 18 HP Armstrong Siddeley model, not the new design. A number of snags had arisen, including a cracked block and evidence of seizure on the auxiliary drive shaft. At this point Colonel Cyril Siddeley took over control of dealings with Bentley and the tone sharpens considerably. By May, Bentley replied to criticism with a long list of reasons for changes that had had to be made. This may have been too technical for Siddeley, totally concerned with cost reduction.

Also in May, Siddeley was complaining that Bastow had taken seriously idle chat about a limousine version or a 2.3 litre engine which might be cheaper. He (Bastow) had then done some work on these ideas and Siddeley was complaining about paying. He more or less instructed

Bastow to get on with the original brief and ignore any ideas from anyone but him. Then he goes on to suggest torsion bar rear suspension even on the beam axle version of the 3 litre.

Relationships were clearly deteriorating, for in June 1949 there is a snotty memo from Siddeley complaining that Bastow had visited the ASM works without an appointment with himself, was not to do so in future and must always involve him in all future discussions. As Smith says: "Bentley and Bastow, two of the most respected engineers in the business, being admonished like schoolboys". Mervyn Cutler left his post in June 1949 and once he had gone all the momentum seems to have evaporated. The 3 litre engine had done 5000 miles by June and they were about to replace the Cotal gearbox with a Wilson epicyclic. The car reached 95 mph on test and the engine was said to be very smooth. The bodywork fitted was a 2+2 drop head by Graber that happened to be available, much more modern than anything ASM was producing and nowhere near their normal designs.

In July the first signs are appearing of the original misunderstandings. Bentley had made it clear he thought the bodywork should add strength to the car, not just sit there to keep the weather out. Siddeley totally disagreed, explained he always wanted a roomy saloon, not a sports car, was scathing about "Specialist motorists" (i.e. sports car owners) and rather rueing that the firm had spent £19,500 so far. The final letters came in September and October 1949, the first saying that ASM would not

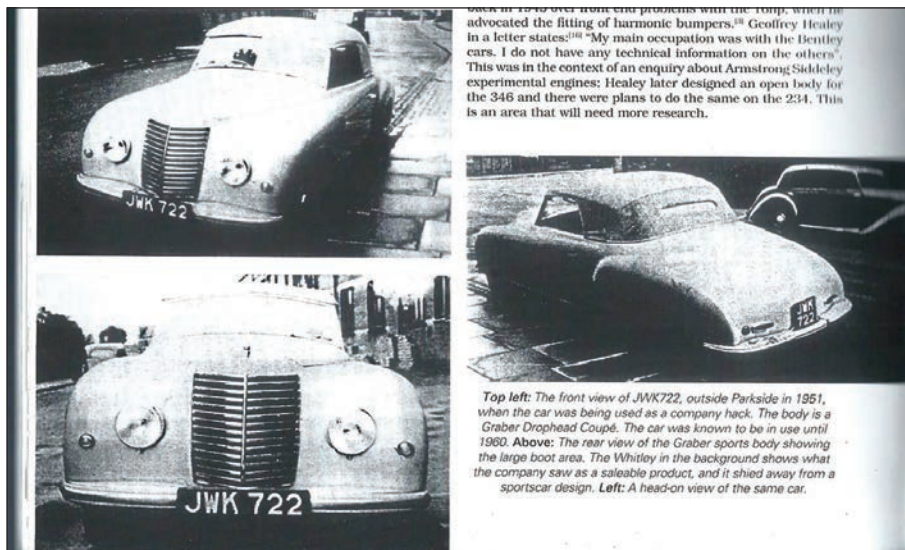
be renewing the contract and the second lamenting that Bentley had been nowhere to be found at the Motor Show. One imagines, and it is confirmed by the family, he was glad to get out of it.

W. O. retired after this and wrote his autobiography, in which he dismisses the Armstrong Siddeley episode in a single paragraph. He could have been more forthcoming but probably felt it best left as "Least said, soonest mended". Donald Bastow went on to be Chief Engineer of Jowett Cars and then held a succession of principal engineer posts in the motor industry, retiring in the late 1970s. The 3 litre engine that had been run in an 18 HP chassis survived as the factory hack, registered as JWK 722 until car production ceased in 1960. It was regarded as sporting and quick provided you revved it, quite distinct from the normal Armstrong Siddeley range of cars suitable for judges and

bishops. There were two more 3 litre engines produced and one went into the prototype Sapphire, but only into the prototype; all production Sapphires had a 3.4 litre pushrod engine.

The Bentley 3 litre engined Sapphire became personal transport for Selwyn Sharp at ASM and had notched up 250,000 miles by 1960.

One gets the feeling that Armstrongs and Lagonda operated in completely different ways. At Lagonda the Experimental shop was off limits to anyone else in the factory and engineers could explore or modify a new or revised model until they had got it right. Nobody from the Board could get near it until Stan Ivermee and W. O. said they could. At Coventry all sorts of people were allowed to express opinions and you get a picture of a director borrowing the latest 'secret' prototype to show off to his pals and then blackballing it if it let him down in front of them!



The only known pictures of the Bentley-engined Armstrong Siddeley. With acknowledgment to Bill Smith's book.

Fathoming out the “unfathomable” Part 2 “This Evil Engine!”

(The continuing story of the experimental I.O.E.

Ricardo Engine) *By Brian Stevens*

Ricardo’s ‘unearthed’ Archive Notes in detail: (The loose folders):-

Upon close inspection it seems that the earliest Lagonda factory drawings contained in the Ricardo folders (standard valve timings for the Davidson 3 Litre) were received by Harry Ricardo in March 1930 and, although these date from 1928, Harry has pencilled 13/3/30 in red crayon across the corner. So let us assume he starts work on adapting his ‘Power Head’ principle to the Davidson design in **March 1930**, with reference to his logs, we can now establish a timeline:-

31/7/30 He meets Alf Cranmer (and Masters) up at Staines to discuss the cylinder head specifications.

5/8/30 He is working on the rocker shaft design.

He is then seemingly working on other projects for the rest of 1930, whilst presumably Lagonda is building the engine.

The next sketch is dated:

3/2/31 This concerns details of the head (more volume required)

24/2/31 Finds him working out the valve chest arrangements. (Staines have sent him a drawing of the original sharing the same date). The focus is the disassembly of the valve springs without the need to remove the cylinder head. This drawing shows a special valve compressor designed to clamp the spring shut for ease of assembly.

26/3/31 Drawings of the valve tappet housing modifications (suggested by Staines) to facilitate the easy withdrawal of the camshaft.

14/7/31 Valve spring calculations are being finalised and then (according to the 1932 report) in July we have the first mention of the test programme:

Engine tests at Lagonda’s in Staines

JULY 1931

At the outset the engine did not run very well and several modifications were made, initially at Staines, to address the three main issues diagnosed at this time, namely:-

Low power output, Rough Running, and ‘Blowback’ through the carburettors.

The various improvement strategies that were applied at the factory are detailed in Harry’s final report presented in August 1932. It is interesting to note here that he is mildly critical of Lagonda’s testing rig, finding its pair of silencers responsible for a 10% overall power output drop when compared with open exhaust porting to the atmosphere. Connecting the test engine’s manifolds to a standard production car exhaust was subsequently tried, but found to be no improvement over the original test rig set up. They elected to carry on using the rig and return to the exhaust problem later.

Tackling the power deficit first, Harry soon discovers machining

Date	Condition	Total 2 1/2 hrs.		Nature of Test.	Results.
		Hours	Objections		
1 Oct 31	Condition unchanged. New Magnets fitted. (Doubtless)		1/2 sec if magnets operative in any way for falling off in power.	Power readings at high speeds.	Practically no difference in power due to magnets.
	Removed exhaust manifolds	1 1/4	1/2 sec if falling off above 3000 rpm. is due to worn pistons but manifolds might be responsible	Power readings at high speeds.	Practically no difference in power due to removal of exhaust manifolds
	On removing the head and timing cover it was found that or both the valve springs were broken as follows:-			all push rods were bent, and in every case valve gear other Cyl. No. 1. Both inlet valve springs broken Cyl. No. 2. Large Spring broken at bottom Cyl. No. 3. Large Spring broken at bottom Cyl. No. 4. Large Spring broken at top Cyl. No. 5. Smaller Spring broken at bottom. Large Spring not broken. Cyl. No. 6. Large Spring broken at bottom Large Spring not broken	little running between 4000 rpm and 4500 rpm. the camshaft drive altered, and the engine was therefore examined for consequent damage to valves and valve gear and intake timing cover.

Notebook entries from 1931 describing the engine tests.

Total 3 3/4 hrs.	
<p>inlet valve seats nos. 2, 3, 4 and 5 showed signs of distortion, nos. 1 and 6 were in good condition.</p> <p>Exhaust valve springs were O.K. but the seats on the valve were in a bad condition showing signs of picking up and pitting.</p> <p>The cyl. block, in the cases of nos. 3 and 4 cyls., was cracked across the exhaust seats on the thrust side of the two valves.</p> <p>The self-operating chain tensioner leaf spring broken at the top.</p> <p>The chain was intact.</p> <p>Worm camshaft drive broken. This drive was held steady by 2 $\frac{5}{16}$" dia. set screws which had sheared.</p> <p>The cause appeared to be the tightening up of the</p>	<p>water pump, but the reason for this tightness is obscure. When disconnected from the worm gear shaft portion of the cam shaft the water pump was fairly free so also was the worm gear.</p> <p>It was then found that the dog on the pump shaft was a very tight fit in the pin of worm gear shaft and allowing of not the slightest misalignment between the pump and the camshaft. Clearance was given here and on re-assembly every thing was perfectly free.</p>

variations from his drawings relating to the lift provided for the inlet valves; this was rectified and he then turns his attention to opening out the inlet ports in the head, and fitting larger carburettors.

The **rough running** problem first rears its ugly head on these initial tests, an issue that plagues development trails almost to the very end. At this stage, they try opening up the area of the head throat (as it was discovered to be smaller at 0.75 than its intended 1.4 sq. ins.) The hope is that this might account for the rough running, due to the small area, giving rise to high turbulence.

The **blowback** is a complete mystery; the masks were good and the valve timing found to be correct.

Improvement in power output

Some progress was made on this front before the whole operation was moved down to Shoreham (but not on the other two 'evils', as Harry referred to them, hence his decision to take the engine 'home')

Test results at the Factory:

1st. Test 63bhp (straight off the drawing board)

2nd. Test 67bhp (with larger carburettors) Interestingly, this is also Lagonda's figure for the original O.H.V. Davidson engine quoted to Harry at the outset of the commission.

3rd. Test 71bhp (increased head throat area to 1.35 sq.ins. DESPITE lower compression, now 5.8:1)

4th. Test 72.4 bhp (larger inlet ports - 2.3 sq. ins)

5th Test 73.5 bhp (at 3600 revs ~ Torque now 102.5 p.s.i. via increased inlet valve lift)

6th. Test 81 bhp (removal of tail pipe from the rig's silencer)

Note: Two other strategies were tried, to no effect:- stronger valve springs and solid piston skirts)

The engine arrives at Ricardo's on 11/8/31, and we move to the Shoreham test logbook: -

25/8/31 The engine is run-up on the Shoreham rig and it 'seems OK' (77.94 BHP) (The more efficient Ricardo test rig seems to have found about five 'horses' more than Test 5)

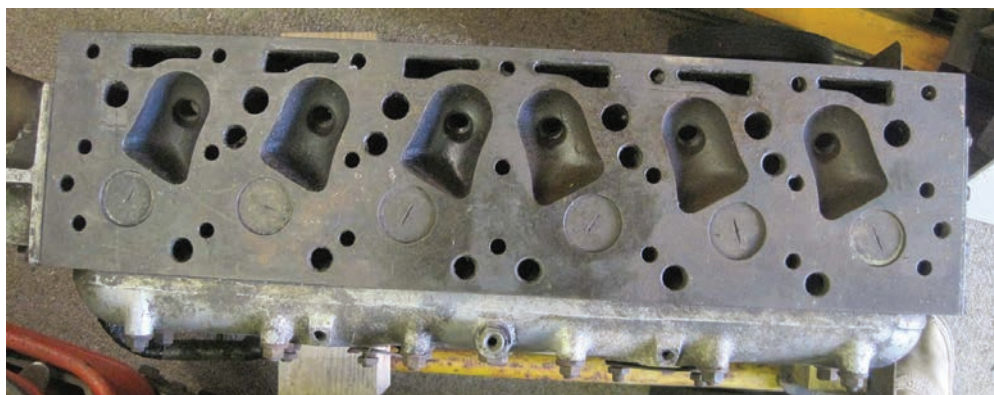
27/8/31 No. 4 piston seizes at the small-end - luckily not picking up on the bore.

7/9/31 New piston fitted.

8/9/31 Valve seat re-grind, increase tappet clearances to 25 thou on the Exhaust and 15 thou on the Inlet (much more power)

29/9/31 At this point Harry has decided that this 'evil engine' (as he refers to it), actually has four major flaws combining to frustrate their main objective -the pursuit of high power. The actual power target is never exactly specified in the log-book, but seems to be estimated at 31.7 BHP per litre later in the file notes- say 95 to 100 BHP (plus a high torque figure to be achieved at around 4,000 revs). The engine still lacked sufficient power, suffered from very rough running, together with 'blow back' through the carburettors, and has now developed 'piston blow' past the rings; (plus it was ingesting its valve seat material after only 11 hours and 45 mins. running time).

1/10/31 The engine blows up! Whilst running at 4,200 RPM the camshaft drive sheared, with consequent damage to valves and valve gear. Six inlet valve springs are broken and the push-



The 3 Litre Lagonda IOE Cylinder Head.



The Rolls Royce FB 60 Ricardo IOE Cylinder Head.

rods are bent. Inlet valve seats were distorted, with the exception of 1 and 6. The exhaust valve springs were OK, but the valve seats were very rough and pitted. The cylinder block was cracked across the exhaust seats of Nos. 3 and 4. The timing chain tensioner had broken but the chain was intact (this time!) The vernier camshaft drive had broken (it was critically noted that the entire force of the drive was taken on just two 5/16" diameter pins!) Subsequent investigation found the water pump drive to be far too tight.

14/10/31 The engine is rebuilt, this time with a revised water cooling path. Water from the pump now enters the front engine end-plate and travels the entire length of the block between the cylinders and the underside of the exhaust valve casting, squirting water directly beneath the valve seats. The power is back up on this test to 113 BMEP (76.5 BHP - but still 1.5 HP shy of the initial run-up). There is an interesting note in the margin that relates this performance as being much closer to the experimental single cylinder 'Chenard' test engine that served to develop the 4 ltr. Bentley I.O.E. design.

16/10/31 A precautionary strip down revealed that the crack in No.4 exhaust seat was getting worse. From now on the engine would be warmed up gently on 6 cylinders, and then plugs 3 and 4 would be shorted out for full throttle tests. At this point, the problem of the rough running was 'cured' temporarily by using two head gaskets, which of course lowered the C.R. (to 5.33 to 1) and dropped the power (it turns out later that the rough running is related to restricted space below the inlet valve

isolating pockets of gas.)

31/10/31 After running for two minutes at about 1000 RPM, the timing chain breaks! This causes the following damage:- broken chain, timing cover damage, chain tensioner holding stud bent, gears on both crank and cam shafts slightly damaged, No. 2 and 6 push-rods bent, four valve springs broken. The view is formed that this is a straightforward chain failure due, no doubt, to being overstressed in the first blow-up. The indicator diagrams on engine pressure do not make a clear connection between the smooth (two gasket) running and the extremely rough (single gasket) condition.

16/11/31 Rebuilt engine, with a new chain but no tensioner (stud broken), new inlet valve springs fitted (supplied by 'Lion Springs' this time) Cold water from the mains was now being pumped straight into the underside of the exhaust seats.

17/11/31 Attention turns to solving the piston 'blow'- bad in all tests.

20/11/31 They take the head off again. They had tried radial grooves in the top rings and these were now all in pieces.

24/11/31 They install 'Bohnalite' pistons fitted with two narrow rings in the top groove. This completely cures the 'blow', however the power reading has gone down again (friction is suspected)

25/11/31 Wanting to return to one gasket and the original CR (5.65 to 1) and to eliminate the rough running, it is decided to 'pent-roof' the piston crowns. This is the easiest option of three possible 'cures' proposed to reduce the squish and remove the isolation of gas under the inlet valve

(now determined to be the cause). They also considered, but rejected, moving the spark plug positions or sloping the top platform of the block at an angle as per the Bentley 4 Ltr. Engine. They modify just two pistons at first and compare with the remaining plugs shorted out. It is a complete success and all six are modified in this way; this lowers the CR slightly (5.58 to 1). Attention now moves on to the carburettors.

The front carburettor is moved to between cylinders 1 and 2 (was 2 and 3) and the rear one is left between 4 and 5. Blowback is still there.

26/11/31 They fit a balance pipe between the two (horizontal) carburettors; this cures the problem. They are using Zenith 42HK's with a 30mm choke.

1/12/31 Original manifold refitted with a balance passage opened out to a rectangle, one inch by five sixteenths - practically no blow back at any speed.

4/12/31 General Metcalfe's 'lets call the whole thing off!' letter arrives. They pull out all the stops to get the motor running satisfactorily, attempting to construct some impressive power curve 'projections' for the General (see hand written annotations at the foot of Metcalfe's letter). They are utilising four cylinder data and earlier test results before the blow-up. They expect to achieve 116 BMEP (93 BHP at 3,700 revs.).

11/12/31 They manage to get the engine running smoothly on all six cylinders by grinding in all the valves again, and decide to invite Mr Alf Cranmer down for some demonstration runs. They are still at it on the following day but only manage to achieve 107.9 BMEP at 3,200 revs. (78 BHP).

15/12/31 Mr Cranmer arrives for the demonstration; "power not up to expectation" is the single log entry! (106.2 BMEP)- "but within %." is optimistically added. Total hours spent testing = 68.25

Notes:

- The exhaust valves needed grinding in on four occasions in 68 hours.

- KLG 356's were used for the high-speed work; Lodge CV for low speed.

- This engine suffered from very high 'motoring losses' with as much as 40 bhp lost to friction!

- I think HRR's power target may have been 38.3 bhp per litre at 4,320 revs (112.2 on the 72mm engine).

The valve timing undergoes three revisions - the last probably relates to my engine (No.2) with a revised non-mask head design. This sketch being dated

20/12/32, dictates:~

Inlet Open -10 degrees before top dead centre (tdc)

Inlet Closed -40 degrees after tdc.

Exhaust Open -45 degrees before tdc.

Exhaust Closed -10 degrees after tdc.

1932 -There is less to find in the files for this year.

January: Harry is making a proper drawing of the pent- roof piston 'Bohnalite' (21/1/32)

March: He produces a spec. sheet

August: He writes the big report to Lagonda (this runs to 99 pages!).

December: Revised cam, masks and valve springs (20/12/32). This is a very interesting development for me, as it is likely to be the cam used in my (the second?) engine. In which case, this motor (the only one known to survive)

probably wasn't finished until 1933.

THE BIG (final) REPORT BACK TO METCALFE AUGUST 1932

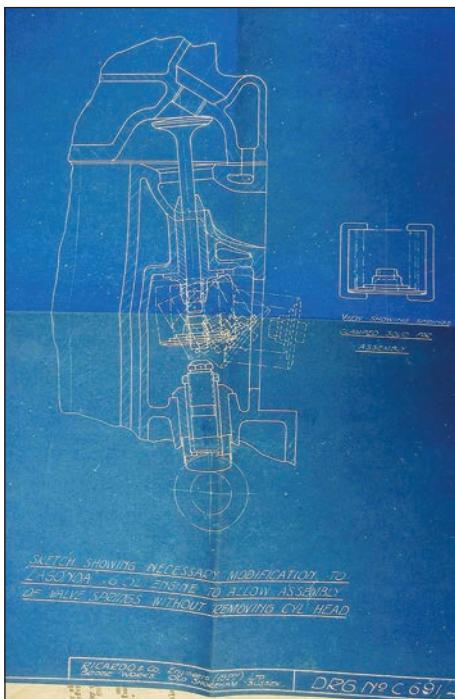
Key points: Harry's introduction is of great interest here as it establishes the history of the project. I quote (my bold and italics) "*The report that follows covers all the work done on this engine from the time it was first run at Messrs' Lagonda in July 1931, up to December 1931 when it was decided to incorporate the results of the tests in a new engine (presumably the one I now have) of the same size and type*". Harry's report continues: -

"The tests may be conveniently divided into two parts:-

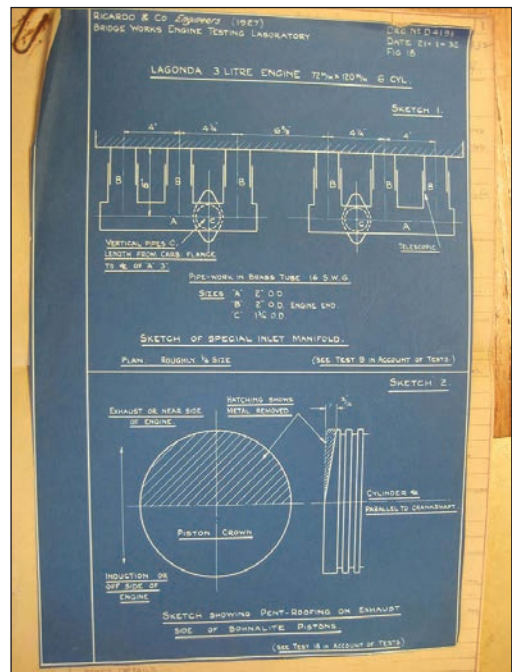
PART 1 Preliminary tests at Messrs' Lagonda in which various features of the design were modified and experiments were made to try and cure the evils from which the engine was suffering.

PART 2

Continuation of tests at Shoreham from **August to December 1931** when work was suspended on this engine owing to cracked exhaust valve seats in Nos. 3 & 4 cylinders pending the building up of a new engine." ■



The Side Valve and Tappet drawing.



The Inlet Manifold & Bohnalite piston drawing.

Letters & emails ... Letters & emails

Dear Roger

I was just having a quick look at Ron Gee's article in the Autumn Magazine and in particular the top photograph on page 23.

Towards the back of the grid is DPC 227, which is an LG45 Special being driven by my father, Desmond Mahony. I still have the car although it is now being re-bodied, as the rudimentary special

body, which it had worn since the early 60s, was becoming rather tired!

The car is currently stripped and having a new ash frame, being designed and constructed. Quite a way to go yet.

Best
Michael Mahony



The LG45 once raced by Desmond Mahony.



Letters & emails ... Letters & emails

Hello Roger,

I enclose a photo of the foot brake cable on my car (TU5955 – a 14/60 saloon).

When I was servicing the car I noticed a single strand of wire.

I ended up taking the seats and floor out and checked where the wire goes through the chassis and the clevis fits on the lever on top of the compensating box. The wire had been rubbing on the chassis and had been damaged for years.

I replaced the wire but found it touched against the chassis again. On the lever on the compensating box there are two positions to fit and I changed to the other one.

The brakes work well now. I have owned the car for 20 years and wonder how many years the wire had been damaged.

If you think this would be of interest to any other members please feel free to publish.

Regards,

Frank Tuffs



This 14/60 has a cable from the brake pedal to the Compensator box (later cars have a rod). So no rear brakes at all if it snaps!



Your Editor has a soft spot for this car, it being the first Lagonda he ever drove. It was described as 'a church on wheels' by its then owner and was christened 'Leadlag'.



Suffolk Lagonda Weekend

Ufford Park Hotel Woodbridge Suffolk

The 41st Suffolk Dinner will take place

on Saturday 7th April 2018 at 6.45

Cost £35.00 per person.

Menu choices include two starters, sorbet, three main courses (meat, fish & vegetarian) and two desserts (*details will be advised on booking*).

There is a car rally in Lower Ufford on Saturday lunchtime with space reserved for Lagondas.

We will meet at a pub on the Sunday (details to be advised).

To book the dinner, please contact Leah Knee 01728 604040 spares@lagonda-club.com or Colin Mallett 01728 688696 colin@fulvens.com. Payment: cheque, bank transfer or debit card.

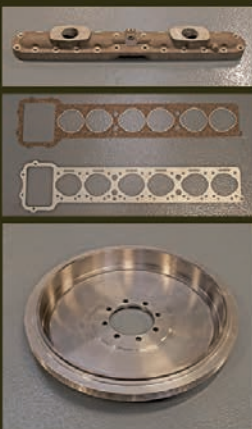
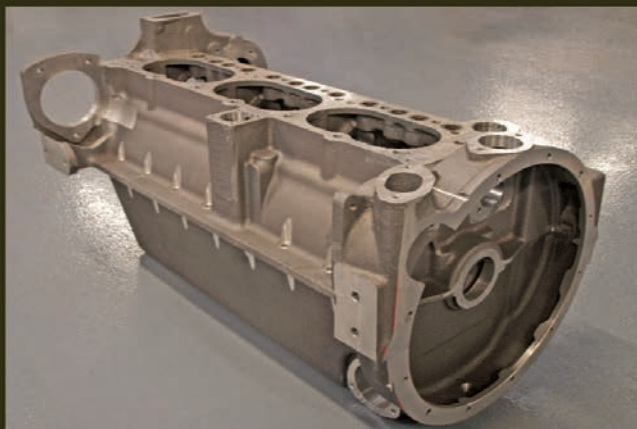
The hotel is offering a special weekend B&B rate. To book this, please contact Ufford Park direct on 01394 383555 or reservations@uffordpark.co.uk. quoting "Lagonda" The hotel also has special spa and golf packages which can be reserved at the same time. To avoid disappointment please book these straight away. Secure parking available.



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and V12 | - Brake drums 4.5 Ltr. and V12 |
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and 3.5 Ltr. |
| - Oil pump 4.5 Ltr. | - Inlet and exhaust manifolds
4.5 Ltr. and V12 | - Steering conversion V12 |
| - Water pump/pump housing
4.5 Ltr. and V12 | - Timing cover 4.5 Ltr. | - AND MANY OTHERS |
| | - Magneto drive box 4.5 Ltr. | |

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