PANORAMIQUE

June 2015

The Magazine of

PANHARD

et Levassor Club GB

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The Magazine of Panhard et Levassor Club GB

June 2015

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EDITORIAL

The Eagle has landed! or so the saying goes. It had to end sometime ,after all, five and a half months is quite a long time to go on safari even if it is visiting friends and relatives as well as travelling down Memory Lane.

All in all it was enjoyable, but living out of a suitcase for that length of time does test one's resolve and patience . Avoiding the British winter was one of the considerations. A short hop to the West coast of Canada was the start of the "Great Adventure" where the weather was clement at around 20C. Two weeks later I was winging my way to Hong Kong on a slightly longer flight of 9+ hrs. HK temps were somewhat higher @ 25/30C with pollution to match. Nevertheless I had a most enjoyable 4wks with long time friends being fully occupied. Next was a another flight of 9hrs which got me to Brisbane to join an old ex-shipmate for a 2wk trip down Memory Lane. Brisbane was hot; the highest we saw 36C with temps indoors frequently sitting on 28/30C. All too soon it was time to move on and so to Auckland, N.Z. There, the major part of visiting was to take place; all two and a half months! With both relatives and friends to catch up with and travel yet again down that much visited Memory Lane. I was able to catch up with David Carruthers in Hastings where he has a barn full of Citroens, being a long time aficionado of the breed. From there it was a journey from Hastings(on the Eastern side of the North Island) to New Plymouth on the Western side of the N.I. There I teamed up with our other N.Z. Member, Lloyd Gleeson who has the only 24ct in N.Z.

A most enjoyable few days were spent in his company. On the opposite side of the road from Lloyd's house is a racecourse (horses). Early one morning I was woken up to a strange drumming sound; it turned out to be the early morning training gallops. All of 20yds away! Later on Lloyd kindly brought the Panhard out of its storage garage and took me for a short spin round the Racecourse car park.

The rest of his "stable" were also fired up i.e. a Morgan and an Alpine. All were on trickle charge and readily started up. The day I left New Plymouth to return to Auckland it was bucketing down and continued to rain to within 100 miles of Auckland. For the most part the weather was fine averaging about 25c. After travelling to the South Island to visit nieces who lived in Nelson and Wanaka, it eventually came time to "move on." This time it was to the U.K. via a week in Singapore. Having worked out of Singapore back in the sixties, I found it very difficult to find things I recognised. Hardly surprising given the passage of time; nothing stands still, particularly in the Far East. It is a very interesting ,dynamic place, but this time I found the heat(in the thirties) plus the humidity at about 80-90% made for a very tiring and uncomfortable time of things. While there a survey declared Singapore was one of the most expensive places in the world! (I know how to pick 'em!) I could testify to that. Come the day and it was yet again time to travel; this time via 2x7hr hops back to the U.K. The 1hr 50min stop at Dubai turned into nearly 4hrs due to not being able to get the Airbus A380 started. Eventually they did and we departed, arriving at Heathrow about 10.30pm. So ended "round the World in 165 days!"

A view over the racecourse with the fabled Mount Egmont in the background

Brian and Lloyd at a Chinese restaurant in New Plymouth

I was delighted to find on my return that the Newsletter/Magazine affairs, which had been left in the capable hands of John Passfield had prospered as never before. He, together with his troops (June Passfield, their son Neil and Alistair Brown) made a significant advancement in publishing which is currently being trialled. This will, it is hoped be approximately cost neutral but will not consume as much time to prepare. This is important as all input is voluntary and limited. I think they've made a cracking job under difficult conditions.

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It is not often that a piece of contemporary news dovetails so neatly into an article carried in our club magazine as the "F1" story does.- 'A record price has been paid for a British vehicle registration number plate after a businessman paid £440,625 to buy the Formula One initials' Afzal Khan 37 smashed the previous record of £331,000 paid 18 months ago for 'M1', to purchase the historic "F1" number plate from Essex County Council. The Bradford entrepreneur, who owns a specialist car design company, plans to display the number plate on his £317,000 Mercedes SLR McLaren supercar, Mr. Afzal Khan has apparently turned down an offer of £6m, saying he thinks it's worth 10 million!

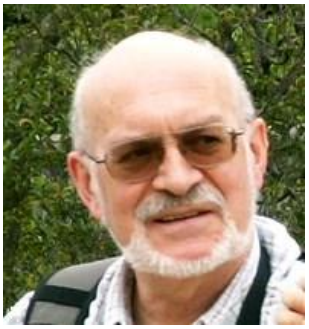
For our article involving the "F1" story we are indebted the efforts of the late Harry Edwards, of the Morris Register, and for permission to use an article Harry wrote, entitled 'Pioneer Motorists of Essex', and which first appeared in the 'Essex Countryside' magazine in the early 1980's, by his widow and Mr. Ian Fuller who has inherited Harry Edwards considerable archive of 'Motoring History' in Essex.

Seen and Heard

Makes you think, makes you stare, as we used to say, and we thought that the following might interest you. Saw it in, 'A shorter Ego' by James Agate, the theatre critic, published in 1945. 'Also made final arrangements for the purchase of a Bentley 6½ Litre, 1928 model, when new cost £2,800 and have got it for £275, getting the Vauxhall taken off my hands and what it now stands me in. Nett result £50 down and 18 instalments of £14.

Yes and you heard it here first. This time getting down and dirty in the actual ledger of motor cars registered in Essex for 1910, I came across the following entry:-
F4078 Frank Winfield Woolworth, 280 Broadway New York. Panhard 35hp. Double Phaeton, Colour Brown, registered 26th. July 1910.

Unfortunately I cannot tell you what it all means!



Presidents Greetings

Hello to everyone out there enjoying what has turned out to be a beautiful Spring.

Earlier in the year I was able to get the 24CT out of its lock-up garage and do some work on the exhaust. The only place I have to work on the car, is in the road outside the house, as the lock-up is some 6 miles away and I never have enough of the right tools on site. The good weather meant that I was able to fit a new silencer which I had bought from **SDCONCEPTS** in France. I had contacted **P. D. Gough.** in Nottingham, but they were unable to supply the silencer with the '**2 entries'** as mine is the **M10S Twin pipe** version and they did not have a pattern for that model.

It's a bit of a shame really because the old silencer is a very nice Stainless steel job whereas the new one is Mild steel. The trouble was that there were absolutely **no baffles** in it, and, while it is nice to sound like fully tuned race car, the noise became unbearable after a few miles! I had to cut the ends off of the pipes where they enter the silencer as they were too long for the new one which has a central perforated tube and baffles.

The result is a much more civilised ride (I can hear myself think when I accelerate!) whilst it still retains a pleasing exhaust note. Generally the car starts and runs much better with the Electronic Ignition but I am still evaluating its reliability as it coughed and spluttered a bit after a long hard climb up Duncton Hill on the way to the Goodwood members meeting. The main problem is that the distributor is locked in place with no vacuum advance and the only other adjustment I have is manual which is not ideal. **Hurry up, Mike,** and perfect your ignition system with the Trigger wheel, I'm sure lots of people would like upgrade to it.

Because of the reliability issues I have decided to take the PL17 to the International meeting in Belgium. I don't know who else is going as I have had no positive replies to my email query to the likely candidates. As far as I know John Fletcher will be there but the others have commitments elsewhere.
Our Events Officer, Gary Ockenden is making a return visit to stay with John Peterson in Reno, USA. (the Panhard USA President who visited us last year) we await a report for the next newsletter.

The Annual meeting at South Cerney this year coincides with the **Citroën Traction Owners Club** annual rally as they have decided to hold their meeting at the same site, so we will look forward to lots of Tractions on display. Unfortunately I will not be in my Traction as my first loyalty is to the PLCGB. We look forward to seeing lots of you there and hope for clement weather.

Best wishes to you all,

Richard Vick

Events Diary 2015

13th-14th June	The Brooklands Double Twelve Motorsport Festival	www.brooklandsmuseum.com
15th July	The Maldon Motor Show	www.maldonmotorshow.co.uk
31st July - 2nd August	Steam Extravaganza - South Cerney Airfield (our main summer meeting and AGM)	www.glossteamextravaganza.com
17th August	Cranleigh Classic Car Show & Autojumble	www.cranleighlions.org
22nd August	Beaulieu Simply Classics & Sports Car	www.beaulieu.co.uk
5th-6th September	Beaulieu International Autojumble	www.beaulieu.co.uk
19th-20th September	Isle of Wight International Classic Car Show (contact Victor Galluchi on 02084397871)	
27th September	29th Grand Motorbilia Day at Battlesbridge	www.battlesbridge.com

The "F1" Story

"F1", the first motor vehicle registered in Essex on January 1st 1904 was a 15hp Panhard et Levassor:

Readers will no doubt remember that one of the many 'round to its' awaiting attention, concerned the Panhard reference from the 'correspondence' section of 'The Motor' dated March 1st 1927, page 218, and which reads as follows:-

> *'The Life of a Car'*
>
> *' I have been an owner driver since 1901 and think there is no doubt that cars 20 years ago had at least as long a life as the modern car.*
>
> *I remember buying in 1902 a 15hp. Panhard, priced £780-00 which gave practically no trouble On one occasion I left London after lunch on a Saturday and arrived at Thurso on the Monday evening. I kept the car for two years and then sold it to Essex County Council. Either 7 or 8 years afterwards I remember seeing that the Council were getting their Road Surveyors a more modern vehicle and that they had run 125,000 miles with the Panhard. What became of the car after that I do not know.*
>
> *I do not think the car of today gets the systematic attention that the car of the past had. Probably because it is looked upon as fool proof.*
>
> *Greasing and oiling should be done on a system. The Army practice of polishing greasers is a good one.'*
>
> *P.*

We will let Harry Edwards tell the story in his own words, save to say that the Essex County Council Minute Book for Highways, Bridges and Buildings, relates that,' A second-hand 15hp Panhard was purchased from Mr. George Taylor of County Motors, Chelmsford for £500 and the old car, Mr Taylor allowing also tyres for the value of £30.'

PIONEER MOTORISTS OF ESSEX

"F1", the coveted first Essex car registration number, can still be seen, but not on the car which originally boasted that distinction. Who was the holder of the first driving license in Essex? And who was the first lady to drive a motor car? These and many other interesting facts are revealed by the author in this fascinating article of early motoring in and around Chelmsford.

What the modern car travelling at the permitted 70mph on our present day motorways and realize what enormous strides have been made in the lifetime of some people still living. Consider, for instance our octogenarian citizens who were born at the time when the maximum speed for a motor car was 12 m.p.h. Indeed there are still a few elderly folk alive who could have ridden in a motor vehicle at a time when it was illegal to drive a " horseless carriage" in excess of 2mph in the town!

In 1885 legislation was introduced which specified that one of the three persons "in attendance" with a motor driven vehicle must walk ahead with a red flag to warn oncoming traffic and to help control restive horses. Maximum speeds allowed were 4 m.p.h.in the country reducing to 2 m.p.h. in towns. The so called Emancipation Act of 1896 removed the obligation to carry a flag and increased the maximum speed of vehicles under three tone to a scorching 12 m.p.h. - subsequently increased to 20 m.p.h. with the Motor Car Act of 1903. It may come as quite a surprise to some readers to know that the 20 m.p.h. maximum remained in force until as late as 1930.

The freedom of owners to travel at 20mph was tempered by the impositioning of licensing of drivers and the use of registration marks to identify cars. Strong objections were made by the motoring gentry of the period

who considered that they were being, "numbered like criminals and labelled like hackney carriages".

The use of registration numbers on cars began on the first day of 1904 when Registrars throughout the country began issuing single and double letter prefix numbers. In a few instances the allocation of the pre - fix had some significance to the area, For example, the capital city, London was given the letter "A", Glasgow used "G", while the Scottish capital Edinburgh, handled "S" registrations, Ireland, all of which still came under the Crown, was allotted combinations using the letter "I". Essex motorists, for some now unknown reason were given registration numbers starting with the letter "F".

"F1", the coveted first Essex number can still be seen today on Chelmsford's sleek civic limousine on official occasions, but it was first carried on a four-seater 15hp Panhard et Levassor, finished in dark blue with yellow lining, used by Percy John Sheldon, the County Surveyor. Mr. Sheldon had already been in office as Chief Surveyor for the Highways and Bridges of Essex for some twenty years by the time the registration regulations had been introduced and was no stranger to motor travel. He had been in the habit of hiring a Benz motor car from Charles Knight of Bridgeworks, Springfield, together with the driver, one Clifford Goodall.

Clifford Goodall, unknowingly was carving a place in motoring history for himself. At the time he was only 14 years of age and an apprentice with Knights.

No driving license was required and Percy Sheldon appears to have considerable faith in Goodall's driving ability as he subsequently made him his official chauffeur and motor car engineer: with auxiliary duties at the County Surveyor's house, 'The Chantry' at Springfield, of looking after his employers bicycle and in assisting in repairs to steam rollers and other plant at the County yard in Navigation road. Following the Motor Car Act of 1903, Percy Sheldon was appointed Registrar to the County Council and one of his first acts in this capacity was to issue driving license No. 1 to his chauffeur, Goodall, with the exception of a period of service in rhe Royal Navy during World War One, continued in charge of all motor vehicles for the Bridges and Highways Department until just after World War Two.

In his retirement and until his death in 1968, he was a well known figure in the Chelmsford area driving an impeccably kept 1924 Bullnose Morris Cowley two-seater registered PU 980. This had been purchased new by Essex County Council and had been driven by chauffeur Goodall before it subsequently became his own property, proudly displaying a veteran drivers badge proclaiming over half a century of driving experience by the owner. It is pleasing to record that the old Morris still exists in the hands of an Essex old - car enthusiast.

The County Surveyor, by demonstrating the usefulness of a motor vehicle in the execution of his duties, persuaded the County Council to purchase a French made De Dion Bouton (Pictured left, driven by Clifford Goodall) costing £290 13s. This car was powered by a single cylinder 3½hp engine, but despite this seemingly low rating it was somewhat more powerful than the hired Benz model.

The infant 'horseless carriage' industry evolved out of the experiences and techniques of both the horse drawn carriage and bicycle manufacturers, and the De Dion Bouton well illustrated this marriage of the two with its spoked cycle - type wheels and a body design that was truly a carriage without a horse.

The completely open and door - less vis - a' - vis body, as the name suggests, puts the driver and a passenger

facing other passengers on a second seat at the front; albeit the driver's seat located above the engine, was higher, which was just as well in view of the restricted forward visibility when the front seat was occupied.

Between the two seats on a vertical column was a steering bar, gear change and ignition levers and on the off side of the body of the body a handle was provided to start the engine. As this was prior to the introduction of registration numbers, there is no number plate, instead a note of officialdom was lent by the elaborate plate fixed at the front carrying the Essex coat of arms.

Hills in Essex are not noted for their severity and those that do exist, such as Danbury, Hatfield Peverel, Rettendon and Dunmow pose no problem for the modern motorist, passing almost unnoticed. For the driver of the two speed 3½ hp De Dion Bouton it was a case of getting down and pushing - or on one occasion, enlisting the aid of a public spirited farmer and his horse. It is recorded that on one occasion the youthful Clifford Goodall was instructed the considerable distance to London's Guildhall for some official function and had to run the gauntlet of the unrestrained cockney humour of the hansom cab drivers. "sparrow starver" was one of the taunts flung at him as the tips of the cabbies whips, deftly manipulated flicked him under the chin and on the back of the neck with little more than a tickle. On another occasion the Chief Constable was a passenger in the De Dion on a journey to Clavering where a body had been discovered under an elder bush at Moat Farm. Eventually the time came in September 1903 when the committee decided that the De Dion Bouton was worn out and becoming very expensive to maintain, and its lack of power was also criticised. Given the option to repair or replace, the committee decided to buy another vehicle. The new vehicle was the Panhard already mentioned, which carried the first Essex registration "F1".

Unlike the De Dion, the new Panhard et Levassor had a more conventional layout with the engine and radiator at the front, gearbox

amidships and driven wheels - albeit by chain drive at the back. In fact it was Panhard et Levassor who first evolved this layout in 1891 when most of the infant motor industry was following Karl Benz's arrangement which put a single cylinder engine with a horizontal flywheel at the rear.

The Council's new acquisition cost £500 and the old car in part - exchange, was supplied by Arch Rosling who was Chelmsford's Panhard agent.

It was a more imposing vehicle than its predecessor, having a tonneau body with an entrance door at the back, a particular type of bodywork which was popular at the beginning of the century but began to disappear by the end of the first decade. Research suggests that in the case of the County Surveyor's car, the bodywork deteriorated rather rapidly and was replaced with a landaulette body made locally. The best known Coachbuilder in Chelmsford at the time was Munnion & Sons of Springfield Rd. but this is a speculation. What is certain is that "F1" was carried by a 15 hp Panhard et Levassor, tonneau from January 1904 until October 11th.1906, then the same re-bodied Panhard (or another 15h.p. model) continued to be registered with the same number until the number was transferred to a Darracq in May 1910.

During the six years that the Panhard served Percy J. Sheldon, he sometimes placed the car and its driver, at the service of the Chief Constable, Captain Showers, a facility that on more than one occasion enabled the police to be on the scene of a crime or tragedy in fairly quick time. One outstanding example of the co - operation happened on the morning of the first of September in 1905 when the Great Eastern Railway Cromer Express was derailed and plunged onto Witham Station platform. Killing ten people including a tiny baby and injury to another 50 persons. Superintendent Hastings and three constables were transported from Chelmsford to Witham in record time.

Following the Panhard came the Darracq. This was another French make with what was called a "torpedo"

body; in later years this type of coachwork was generally referred to as a 'tourer'. This car, a 14/16 h.p. model with a four cylinder engine was to provide the transport for the County Surveyor's work throughout World War One.

Clifford Goodall, as already mentioned, was holder of the first driving license in Essex, but who was the first lady to be licensed to drive in the County? Once again the "F1" registration comes into the picture for it was in 1914 that Percy Sheldon's daughter, later Mrs Bertha Bright was issued with the necessary documents to drive father's Darracq. Mrs. Bright who lived to a grand old age of 91, died in 1981 but the original driving license is still in the care of her son, Derek Bright, a Witham solicitor.

For reasons unexplained the Darracq's replacement in December 1918, a 20h.p. Talbot, carried the registration number "F270" instead of the "F1" plate which, curiously was obtained by Samuel Withers of the Motor House in far away Shrewsbury, for his Darracq 12/16 hp four-seater tonneau used for hire work.

The Talbot was still in service with the Council when Percy J. Sheldon retired in 1922 and it was handed over to his successor, Major W.H. Morgan DSO. After the demise of this Shropshire based Darracq in May 1920, there is a mystery surrounding the subsequent use of the "F1" registration. One source of information suggests that it remained unused until 35 years later when the Council paid the requisite £5 fee to have it resurrected and transferred to their civic car, a Humber.

However, motor engineer Laurie Pavitte of Ongar, worked for the Council between the years 1932 and 1935 and he definitely recalls seeing the "F1" registration on a Daimler during that period. The Daimler was probably a sleeve - valve model and was garaged in Arbour lane, Chelmsford. Certainly in 1960 "F1" went on to another Daimler used by the chairman of the Essex County Council and has continued to grace succeeding prestige limousines.

Alistair Brown

The 15hp Panhard with original body.

The re-bodied Panhard showing the F1 number plate.

Photos reproduced with kind permission of the Essex Records Office

100,000km in a Morris Cowley

Handover - early 1980's

This picture of Irvin Laidlaw (now Lord Laidlaw) handing over SL3074, a 1927 4½ Litre VDP Sports Tourer to Peter Graham in a North Sydney street in 1983 or 4 started a new adventure. The Bentley could be said to have changed my life. It has provided a large helping of pleasure. The thought of owning a Bentley started back in school when the chauffeur to the conductor of the Liverpool Philharmonic Orchestra used to hose me down every time I got close to the two Bentleys he looked after. One day I told him he might be able to wash a Bentley, but one day I would own one. My first was in 1974, the Mk6 now owned by Graeme Leacock in Brisbane.

Soon after driving back from Sydney to Brisbane in SL3074 we found it needed a lot of attention starting with its first engine rebuild in my ownership. The second followed soon after along with a new differential. All this work was being undertaken by commercial restorers, as I had neither the knowledge nor time to do any work myself.

SL3074 is a car with a long and interesting history. First delivered to the Hon. Edward Partington who was the owner/headmaster of Rugby school it still has all it's matching numbers and carries its original registration number YU4517. When new it looked very similar to how it does today, except black all over and unusually had a fabric covered bonnet. The car served Partington till December 1929 when he traded it in on a new Barker bodied 4½ from Jack Barclay. In the 2 years that the Hon. Edward had owned the car it would appear from the service records to have spent almost as much time in Bentley's Kensington service depot as it did with its owner. It proceeded to have a variety of keepers over the next 40 years. It had a series of misadventures. A crash in London in 1932 resulted in a new Freestone & Webb saloon body being fitted. Again in the late 1930's as the result of another accident it had another new body, this time one constructed by the Albany Body Company. The author and humorist W.H. Charnock owned SL3074 for several years and wrote about it in a number of his books and short stories.

Its next big change was in 1970 when owned by Ann Klein in Philadelphia. A restorer in the UK claimed to have found the original body and offered to refit it to SL3074. This is doubtful as I believe it actually was fitted with a Maynell & Philips replica body identical to the original. This body was still on the car when it came into my possession. Clare Hay is doubtful that this body was an original VDP Tourer, but is not 100% certain. After Ann Klein sold the car it was used by several owners covering a further 30,000 miles from then till when I bought it.

From then to 7th October 2002 SL3074 served me very well. It competed in every motoring event possible. Together we won the Adelaide Grand Prix Rally on handicap and several times won the vintage section when it became the Melbourne event. We raced; hill climbed and entered in anything it could do. It helped us move house. With the back seats out it made a great “ute,” and was often used as a daily driver. It was rebuilt again in 1994 by the late Phil Hanson, Adelaide’s only certified helicopter rebuilder, by which time the engine had done a lot of work since its second rebuild in 1984. My records show it had done about 65,000 miles between 1984 and 1994. Between 1994 and 7th October 2002 it did a further 76,000 miles and was getting very tired, not the engine, but the chassis which was becoming sloppy and feeling its age. It felt like an old well loved Bentley.

We attended the National Bentley rally in the Barossa Valley, South Australia in September/October 2002. Together with four other Bentley owners set off to drive back to Perth. We did not get far, to Crystal Brook to be exact.

SL3074 caught fire, a fuel line from the Autovac to the carbies fractured and the petrol was sparked by the on/off headlamp switch which was shorting beneath the dash. The mixture of fuel and oil impregnated wood and everything else was a recipe for disaster. Five fire extinguishers did little to help. A farmer with a shovel was more successful and the local Bush Fire Brigade finally put out the fire. YU4517 was destroyed.

Next morning, up early, on the phone to Shannon's Insurance. I must record that without the BRILLIANT Shannon’s the rest of this story would not exist.

We arranged to get the car back to Perth and start on its next adventure. Here we found our first challenge; the farmer had caused an interstate drama. Western Australia does not like South Australian dirt. I had a multiple day exercise removing every grain of dirt from the chassis to satisfy the quarantine inspectors that Western Australia would not be contaminated with a major infestation of South Australia.

As you will see from the pictures I was left with little option but to rebuild everything.

The next words are directed towards trying to providing some rationalisation of what we did during the rebuild.

Shannon's had written off the wreck and gave me a substantial cheque and allowed me to keep the salvage. We toyed with several options

a) Buying another car, I had almost enough money.
b) Giving the chassis to "somebody" to restore.
c) Taking on the task ourselves. Ric Wake was familiar with the car having helped maintain it since I had lived in Perth.

The decision was made that we would do the work ourselves. We set the goal to make a car that embodied all the good aspects of the various other Bentleys I had driven around the world. We were fortunate in the fact we had the money, thank you again Shannon's, the space, I had a 350 sm warehouse where I stored my cars and the time. Ric had the skill having worked at the pointy end of development with Orbital Engineering in Perth and the USA and was very keen to take on the task. Ric the skilled worker and little old me as the TA (trades assistant). The only rule was no short cuts to save time or money, it had to be right.

Chassis

Our first task was to strip everything off the chassis and label every part, every nut and bolt and if necessary take a picture. For anybody doing this task a dedicated digital camera and a dedicated computer are strongly recommended. Take pictures in the maximum resolution possible, later you will value the detail that high resolution affords.

We found some real horrors. The fire had warped the chassis to a degree which stretches the imagination. The greatest fright however was the repairs that had been done to fix up the old accidents in the 1930's. They had really bodged the work, plates and various bits of metal tacked to the chassis. Cheap fixes had been made to save effort and cost. Nothing had been done to what would be regarded as an acceptable standard today. This was very surprising as many of the repairs to the chassis after both accidents had been done at Bentley Motors Kingston Service Depot. They must have contracted out this work.

The first task was to remove the plates and filler in the chassis and replace with them new metal in the right size and shape. Once these things had been corrected the next task to get the chassis straight, true and dimensionally correct. The late John Hunt in the UK was able to supply large chassis diagrams showing all the measurements which were invaluable. Ric adopted a strong man approach, bolting 6 foot lengths of 6x2 Pine to the chassis and pulling and shoving till it all lined up.

We took the opportunity to replace the rods between the chassis stanchions. In addition we made triangulated supports to make sure the only strength was not just the “C” section.

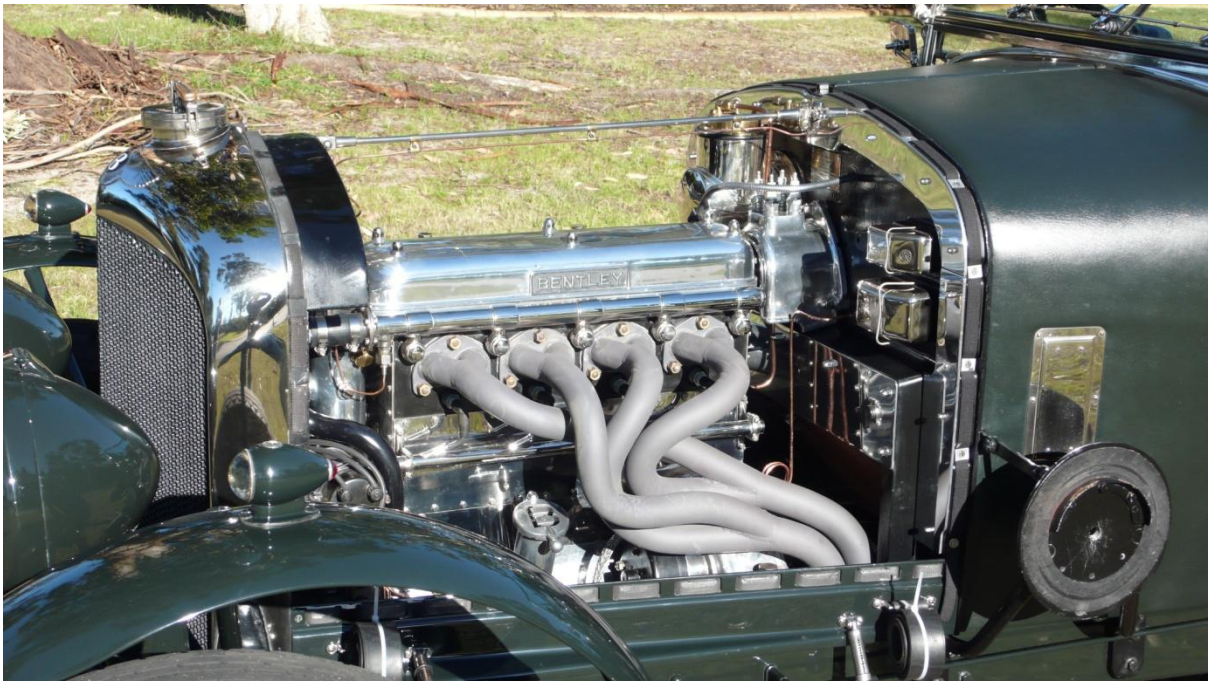
These triangulated braces helped the rigidity as being a very early car its chassis was of the lighter weight steel. Flexing at the stanchions was not unknown. All bushes and bearings were replaced and we took the opportunity to use new nuts and bolts which were still available in the UK. We filled all holes in levers and redrilled the holes to fit new clevis pins; this exercise did make a great difference to the brakes. All drums were re machined and the linings carefully blued to ensure maximum contact area. The front axle was straightened and re tempered.

When the chassis work was done the whole lot went into a very large oven and was normalised as a way of trying to get everything back to being as it was when new.

We totally rebuilt the engine with help and lots of advice from Ben Collings. Ben is notorious for revving his Bentleys to 4500 to 5000, well beyond anything talked about in Technical Facts. Obviously new crank, rods, pistons and rockers but we stayed with the old cam shaft. While losing some breathing at the top end we felt that in normal use 3,000 was likely to be the maximum rpm used and anything above that was

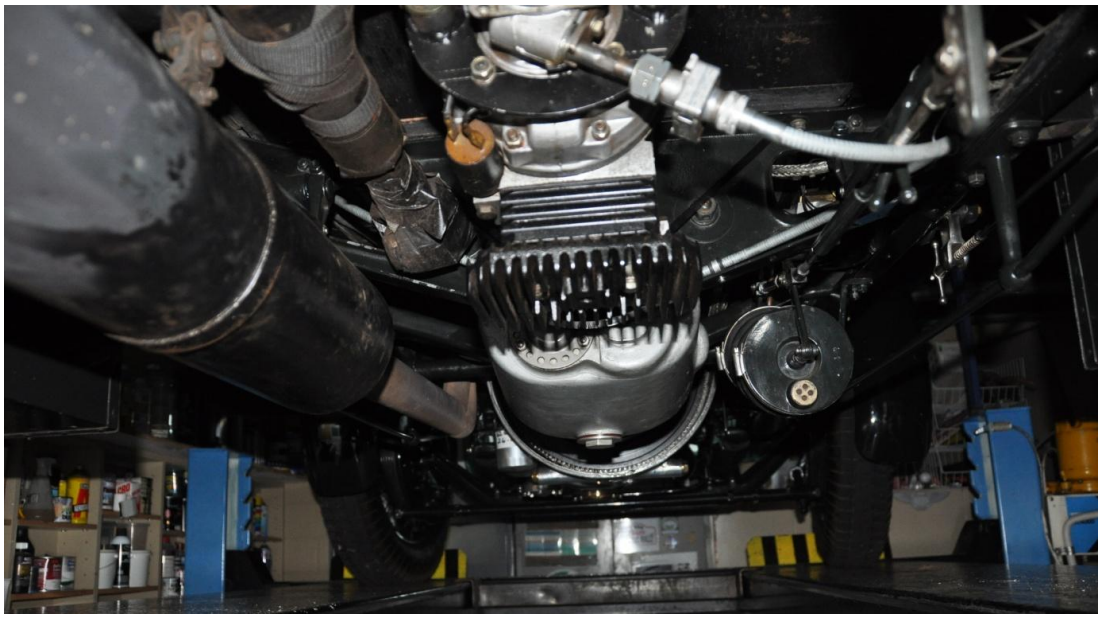
pointless. I have seen 3,200rpm in overdrive top in South Africa on a slight downward slope. I will let you work out the speed. In the last month we have had the car on the Dyno again before its trip to the UK. It is giving 140 BHP at the rear wheels at 3100 and 150 BHP at 3250. Brian Scrivener worked this out to about 185 at the flywheel, substantially more than the engine originally delivered. More at the top end than I would have wished, I was hoping we had been able to get most power at 2250 to 2750 rpm. When I have more time I will try to see if that can be changed.

Part of this increase is due to the custom built exhaust system and part to fitting modern carburettors.



We also fitted gapless rings and made a range of other mods to improve cooling. The car runs without any fan and in 100km has only twice got close to boiling. Once in a huge traffic snarl in the USA and once in Kuala Lumpur traffic. We spent a long time taking the burrs off the internal water passages and ensuring the gas flow in the cylinder head was optimised.

The fire scarred the engine block and everything under the bonnet, to get rid of these marks we polished everything, painted the fire wall black and that has made it easier to keep everything clean.



The gear box had also suffered in the fire so a new set of gears were manufactured locally. Tom, who has since passed away, apologised for taking so long and charging so much. 10 days and $1700. An amazing effort from a one man band. We added overdrive and upgraded that with a larger internal pump, modified clutches and a larger sump using a cylinder head from a KT motorbike as an oil cooler.

As can be seen on the above picture we do have the original shaft in the chassis as the ultimate backup.

The diff was a mess. Not from the fire but from general wear. The carrier was cracked and the star wheels etc had chunks out of them. Funnily enough it was not noisy and showed no signs of wear. We also replaced the half shafts with ones to 8 Litre size.

Roger Fry created a new body with the help of various other trades. We fitted the body and had the painting and trimming done separately.

To try to get the fabric covering looking as close to original as possible we spent some time with Wardell Storey in the UK trying to work out from their records what would have been done in the 1920's. We deduced they would have painted the fabric. We found that by using 2 pack paint with a 50% flattening agent we could achieve the desired result.

All up, the rebuild took 24 months and I believe it has proven to have been worth the effort.

The car is very comfortable, has enough power, and returns 15-17 MPG irrespective of the speed we drive at. The 142 Litre tank is a great boon to covering distance. We get between 12 and 15 thousand miles on a set of tyres; it used 3 litres of oil in 17Km around Australia which I believe is acceptable.

The title, "100,000km in a Morris Cowley", That came from Graeme Leacock. He was following us in his Bentley and listening to truck drivers on their CB radio. One was heard to say ...

"*Wow did you see that old car? It's a Morris Cowley, I'd know them anywhere!"*

Since writing the article the car has covered 10,000 miles in UK and Europe.

Peter Graham

Resurrection of a Panhard (continued ...)

Many thanks for publishing my missive in the March newsletter, I hope it was of interest and will possibly inspire others to rescue more Panhards. As you threatened a full report with photos in the June magazine, I thought I would send an update, with a few more photos.

I have now completed the rebuild of the right hand rear door. As the door bottom was almost non-existent, this proved an interesting experience, again involving trial fitting of the door several times before I was happy with the result.

I took the opportunity to ‘adjust’ the door gaps at the same time. I found the original gaps to be pretty appalling – even on the doors without corrosion issues. My theory is that, by the time my car was made in 1963, the panel dies in the press shop were already approaching 10-years-old and reaching the end of their life. With the limited life of the model and the financial problems, dear old Panhard were no longer able to press a quality panel!

I was slowly working my way rearwards on the right hand side of the car. I had to re-build the boot lip under the rear window as this had corroded out due to the horrible sorbo rubber seal, which posed the question “How do you produce a panel with compound curves in a domestic garage?” Answer – a little bit at a time!!

To keep up my spirits, I have also been doing other small jobs. I have polished much of the alloy trim, which fortunately was in reasonable condition. I have obtained some vinyl paint from Vinylkote – specifically matched for colour and finish to a blue sample from the Relmax interior, in preparation for the renovation of the door cards and trim panels. (I intend to paint the car in Ford Pompadour blue with the Navy blue interior.

I cleaned and painted the exhaust front pipes, fitted new studs and nuts with the inlet pipes and manifold pre-heat pipes, only to realise that I had in fact got one standard front pipe and a tiger one!!! It looks like I’ll have to buy new stainless front and intermediate pipes after all – probably not a bad thing!! I have had the front and rear bumpers professionally polished – they look spectacular! and I have painted the wheels in a colour as near to that strange original fawn colour as I could obtain. All these completed items are stashed in my loft or new shed (bought specially for the purpose), so if I become dejected, I can look at what I have already achieved to give me renewed impetus!

I’m pleased to say, the right hand side of the car is now in primer, the doors fit and although the panels will still need more work before I can consider topcoat, I’m very happy with the result.

I have also rust-proofed and protected the right hand section of the floor underside, although this task was less than difficult – the body had obviously been well treated with some form of wax – very likely from new.

So that’s about the story to date in late April - so far so good - with no nasty surprises, hopefully about 18 months to completion.

I have included photos showing the r/h rear door with outer and inner repair panels fitted, the painted wheels, the door in primer almost complete and the r/h side of the car in primer after fitting the doors and repair work to the rear quarter.

John Bellwood

Dyna Restoration (part 4)

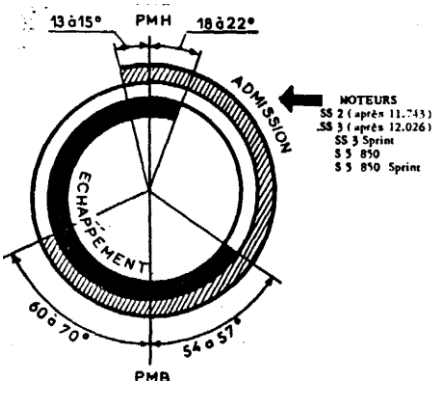
The cylinders were lightly de-glazed with a three-legged hone and then cleaned and oiled. The push-rods, tubes and seals (new from the bearded one) were mounted and with the ring gaps all staggered the cylinders could be fitted. I always use a wide industrial pipe clamp as a ring compressor – rather like a giant jubilee clip. I have found most aftermarket ring compressors to be useless for air-cooled engines.
So at long last each cylinder was slid into place - with lots of oil. The four main cylinder nuts can only be tightened with an open end spanner which I then extended with a tube and attached my Chinese force gauge. I tightened each nut progressively until I reached 7 Kg at the end of my 0.5 metre lever which equates to the required 3.5 Kg – m torque setting.
The flywheel was bolted in place and the screws torqued but I must confess to re-using the old tab washer. Hope it doesn't detach at 10,000 rpm.
At this point I thought I would check the cylinder volumes, i.e. combustion chamber volumes so I bought a nice new 100 ml measure for the job. I managed to balance the engine somewhat precariously at 45 deg. and so with the flywheel indicating TDC I filled the first combustion chamber via the plug hole - ensuring the valves were closed of course. I used some light oil for the job and started each test with the measure at the 100ml mark. I repeated this two or three times for both cylinders and got reasonably consistent results of 64 ml for the combustion volume indicating a compression ratio of about 7.6:1.

The tiny RJH components were cleaned and checked. It was then I found one of the valve seats was cracked – John Passfield came to the rescue with another. One of the rocker mounting stems had to be removed because the long hole where the RJH parts fit seemed blocked. In the end I had to use a long drill to ensure there was a connection with the X-hole. The RJH parts were re-fitted and the *very* light spring force was checked with a paper clip - almost impossible to detect any!

The tips of the rockers were ground to remove the ridge/step which tends to form due to constant contact with the valve. This sort of wear is normal on any engine but the step creates difficulty when adjusting the clearance. With the rockers in place the valves were adjusted to 0.78 mm in readiness for the next stage -- time for the real fun and games: *calage de distribution*.
In the history of the motor car never has so much been written about one subject or so it seems. I knew it was pointless asking a French *Panhardiste* what the logic was in not having actual marks on the bits that go around like every other engine on the planet because I knew the answer would have been very lengthy. I also believe the French enthusiasts actually enjoy messing with their timing.
However I had to make a start and the first question was "which camshaft do I have". I posted this question on the Panhard Forum complete with photo and the measurements I'd taken and very quickly I had an answer that it was the type used on a supercharged DB. Very odd. I asked the individual how he new and he said he could tell from the engraving on the end. Furthermore he provided me with the timing figures:-

AOA = 14 degrees
RFA = 60 degrees
AOE = 57 degrees
RFE = 19 degrees

Actually I found these values were very similar to those of the old Dyna X camshaft :-



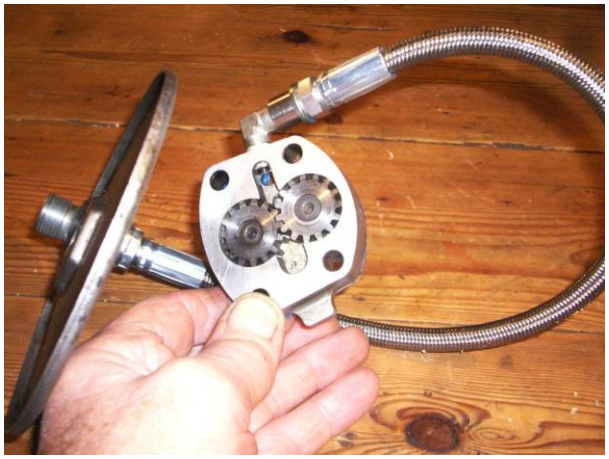
At least I now had something to work with. Rather than mess about with scales attached to the crankshaft pinion I chose to use the flywheel teeth as a measure of angular position knowing that 104 teeth = 360 degrees, i.e. one tooth = 3.46 degrees.
I placed strips of masking tape on the flywheel at the various opening/closing points and marked off tooth positions using my “converted” values :-

AOA = 14 degrees = 4 teeth (inlet opens)
RFA = 60 degrees = 17½ teeth (inlet closes)
AOE = 57 degrees = 16½ teeth (exhaust opens)
RFE = 19 degrees = 5½ teeth (exhaust closes)

I also found it convenient to mark BDC on the flywheel because two of the angles are clearly referred to this point.
During the strip-down I had noticed that both gears had alignment marks. So I transferred the one on the old Celeron gear on to my new Dural version thinking this would give a good result from the start. Sadly this was not to be. The timing was just a mile out with the gears set in the original position. I had no alternative but to start from scratch. Using the recommended three long studs for the camshaft gear it was a fairly simple matter by trial and error to fit the crankshaft gear in *approximately* the correct position. Note: It is unnecessary and undesirable to drive the crankshaft gear right home because it has to come off and on many times before arriving at the ideal position. I followed the technique described in the manual to assess the exact open/close point. This is easily done using a 0.10 mm feeler to determine when it is pinched by the valve. The initial setting of 0.78 mm is deliberately large so that rise and fall of the cam profile is easier to sense. This is fairly standard practice on many engines although I think the norm is to have a 1 mm clearance - I have never done it for the obvious reason that there are usually timing marks on the gears/sprockets etc.

In theory one really only needs to consider the opening, or closing, of just one valve because the timing of the others is entirely determined by the camshaft machining process. However it is useful to check the others so that some symmetry can be achieved from one cylinder to the other.
There is only one means of fine adjustment and that is by re-positioning the crankshaft gear in one of the four keyways. This gear has an odd number of teeth (27) which is not divisible by four. So selecting another keyway gives adjustment of ¼ tooth, ½ tooth and ¾ tooth for the other positions. Since one tooth increment equates to 13.33 degrees selecting another keyway gives an incremental adjustment of 3.33 degrees(1/4 tooth). Technically speaking this results in a maximum *error* of +/- 1.66 degrees or just less than ½ tooth at the flywheel. Not bad. Unfortunately as with most Panhard things doing it is another matter. For example having set the inlet valve at the point of opening it was not then possible to “hold” that position and pull the gears off, index the crankshaft gear to another keyway, and just pop them back on. The reason is that the other compressed valve springs are applying a significant force through those very efficient roller followers and on to the camshaft and then on to the gear teeth – which can bite. So the practical solution was to turn the crankshaft backwards until the gears were in a “relaxed” state where they could easily be removed – but before doing so I marked with the mesh with a felt-tip.
At this stage one needs to decide whether to “advance” or “retard” the gear relative to the crankshaft by turning it through 90 degrees to the next keyway in either a CW or ACW sense. It’s sods law that one moves it the wrong way in which case you must start again. Hours of endless entertainment. Eventually I arrived at a setting which gave the correct valve opening on the first cylinder. The next step was to check the timing for the other cylinder which fortunately was about right otherwise there would have been some more fiddling. Since I was relying on some emailed cam data from a gentleman I had never met I felt it was prudent to check all the opening/closings. Great fun! As it turned out the camshaft was more or less what he had described. Of course the very last step was to put some proper alignment marks on the gears!

With *calage* out of the way I could continue with some more basic re-assembly. I swapped the studs for the correct bolts, made a new tab washer and bolted the camshaft gear in place. When I looked at the oil pressure switch I wasn’t too happy with the very light spring load and the brass contact which looked a bit deformed. Operating with a finger and testing with a meter confirmed it was definitely a bit iffy so I stretched the spring a little and tweeked the brass contact until I got reliable switching. I could then fit my modified timing cover after coating the gears with some moly grease.

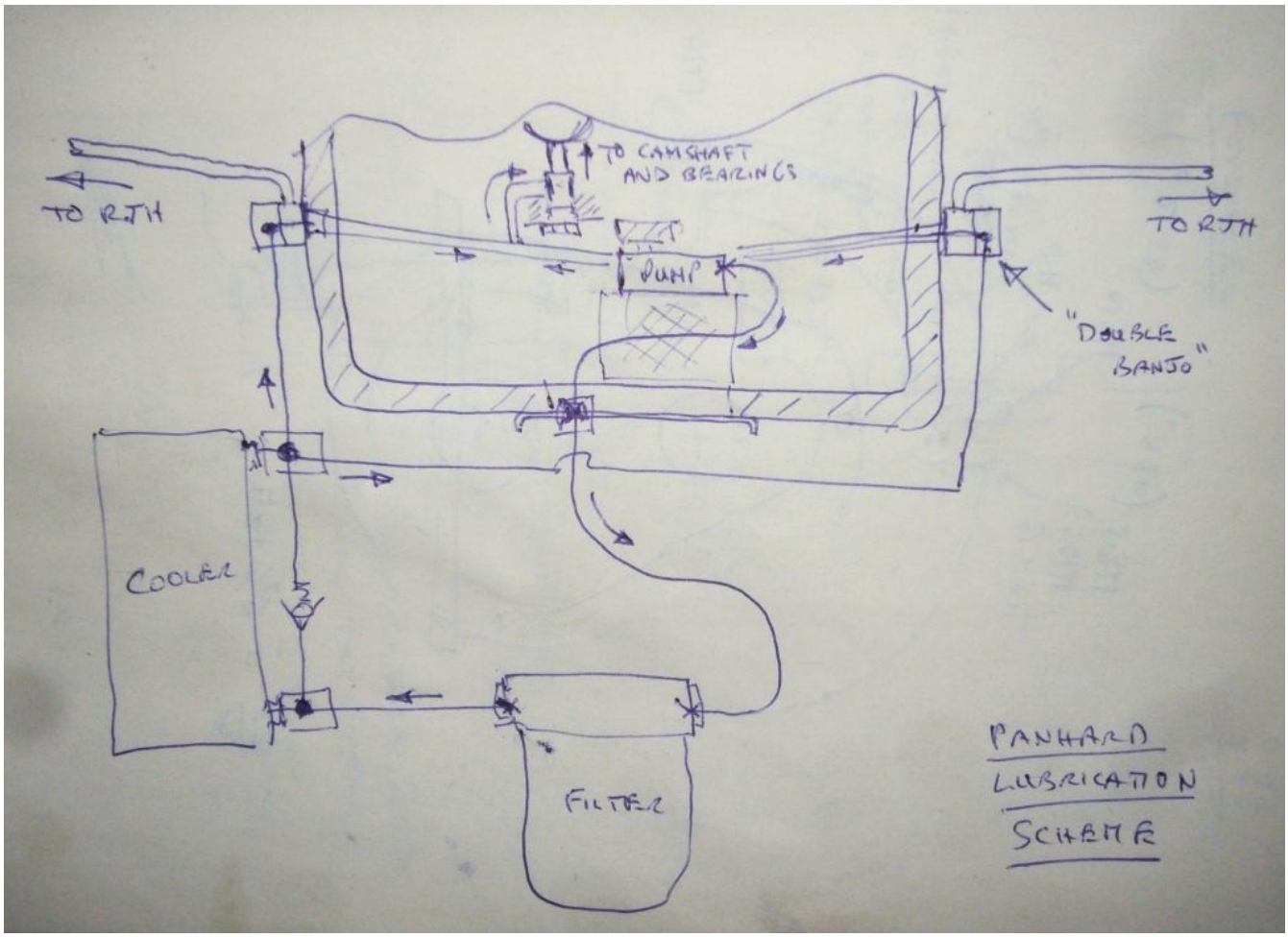


I'd always intended to fit an external cooler and filter and to make this work I needed a direct connection from the oil pump to a new connection on the sump plate. The pump case was just big enough to drill and tap a 1/8" BSP thread but I could only fit a slim 90 degree airline connection due to the proximity of the sump wall.

All that remained was to plug the original feed hole to the main oil gallery with a grub screw. My oil circuit is very simple. All the pump flow would pass from the new connection through an external filter first, then through a cooler after which it would divide and go via two pipes to either end of the main gallery.

I could have used one but I thought maybe the oil entering the gallery from either end was better. To make these connections I used a second banjo stacked with the original fitting together with a longer bolt.

From then onward the system is exactly as standard with the priority valve functioning as normal and supplying the valve gear first before the bearings.



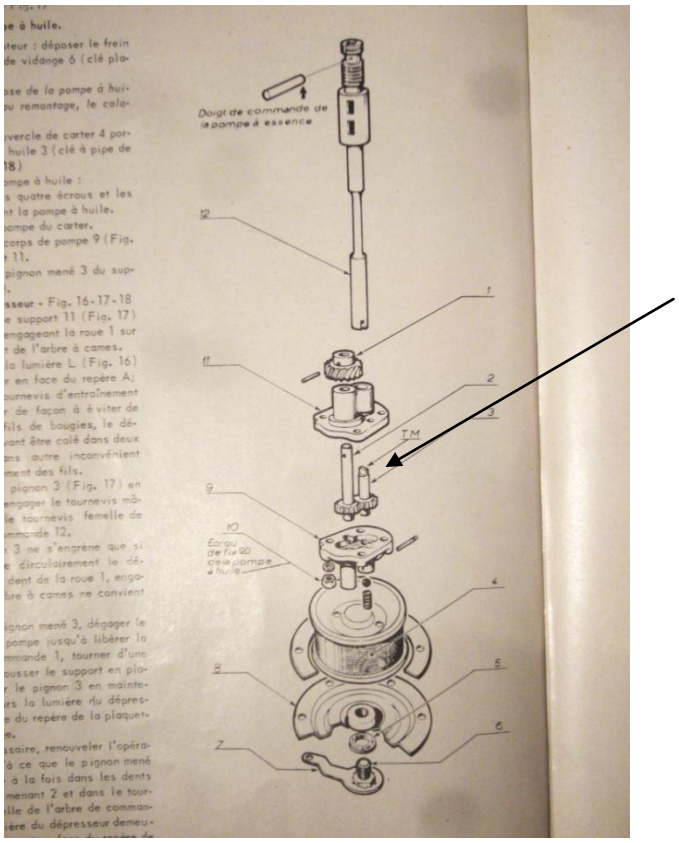
With some trepidation I removed the priority valve to check it over and give it a clean. This was a very difficult job using tweezers and needles – ridiculous of Panhard to install something as delicate as this in an engine!

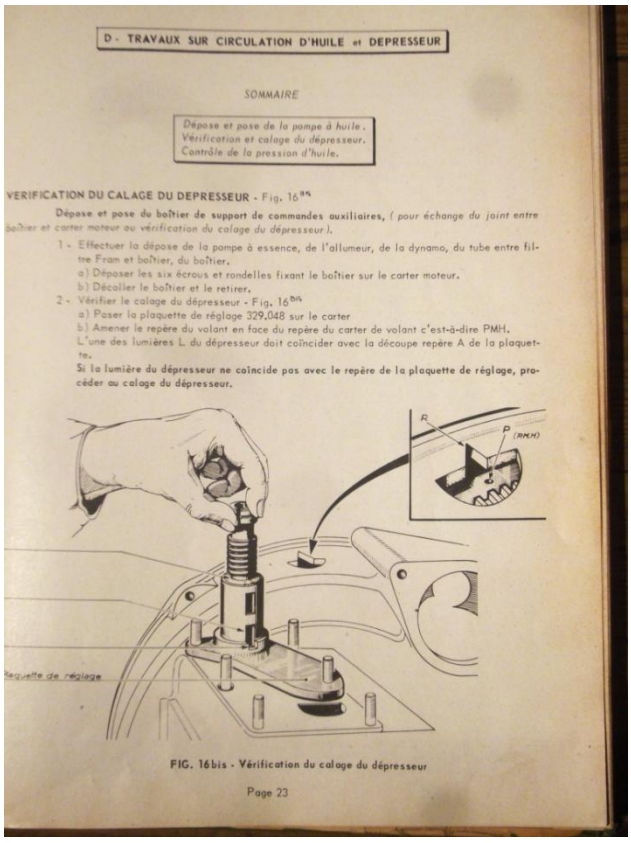
The gear pump itself was in good condition as was the relief valve. (The modified oil circuit would have no effect on the functioning of the valve).

With the pump in place the vertical drive shaft for the distributor could be mounted. This shaft also carries the timing slots which control the crankshaft ventilation system. I simply marked the alignment position on the housing gasket (pointing dead ahead) and tried the shaft in different positions - flywheel at TDC - by placing the pump idler gear in another mesh. There is a special gauge to do this but it does seem a bit unnecessary.

The odd thing is one would expect this position would align the slots with the actual aperture in the upper housing but this is not the case – the aperture is actually at 90 degrees! French logic can be very strange.

I think the reason is because there is no BDC mark on the flywheel and this is when the slots and aperture actually connect.





D - TRAVAUX SUR CIRCULATION D'HUILE et DEPRESSEUR

SOMMAIRE

Dépose et pose de la pompe à huile.
Vérification et calage du dépresseur.
Contrôle de la pression d'huile.

VERIFICATION DU CALAGE DU DEPRESSEUR - Fig. 16bis

Dépose et pose du boîtier de support de commandes auxiliaires, *(pour échange du joint entre boîtier et carter moteur ou vérification du calage du dépresseur).*

1 - Effectuer la dépose de la pompe à essence, de l'allumeur, de la dynamo, du tube entre filtre Fram et boîtier, du boîtier.
a) Déposer les six écrous et rondelles fixant le boîtier sur le carter moteur.
b) Décoller le boîtier et le retirer.

2 - Vérifier le calage du dépresseur - Fig. 16bis
a) Poser la plaquette de réglage 329.048 sur le carter
b) Amener le repère du volant en face du repère du carter de volant c'est-à-dire PMH.
L'une des lumières L du dépresseur doit coïncider avec la découpe repère A de la plaquette.

Si la lumière du dépresseur ne coïncide pas avec le repère de la plaquette de réglage, procéder au calage du dépresseur.

FIG. 16bis - Vérification du calage du dépresseur

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Ted Bemand's 24 Restoration Project

Ted Bemand's Panhard 24 undergoing the original restoration back in the '70s.

The more recent restoration of the same Panhard.

We wish Ted well on this restoration and look forward to a possible article in a future publication.

PANORAMIQUE

June 2015

***Don't let this happen to you - Ed**

The Magazine of

PANHARD

et Levassor Club GB