

# SPARKPLUG

The newsletter of the Letchworth Garden City Classic & Vintage Car Club

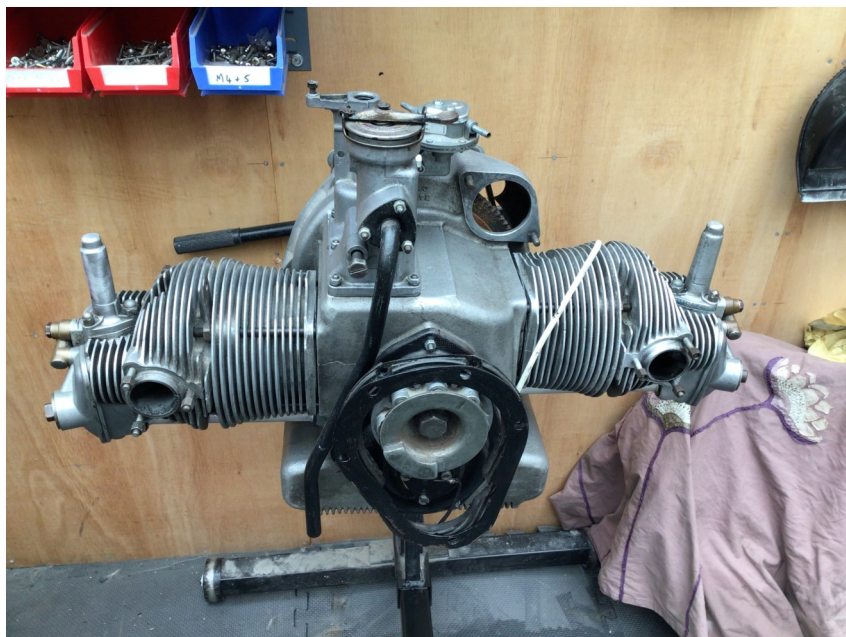


AUGUST 2025

## Another Panhard engine

John Bellwood

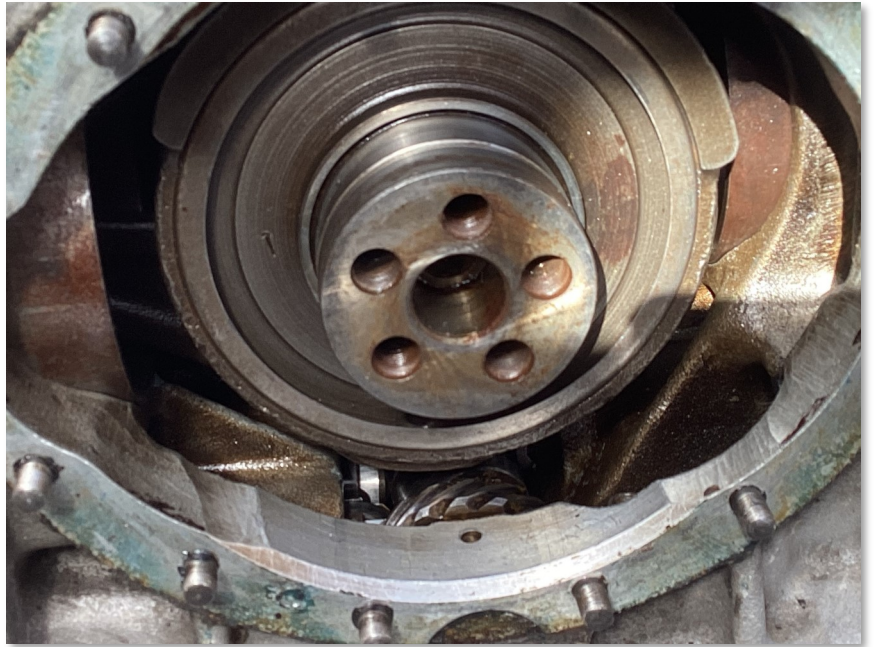
A member of the Panhard & Levassor Club U.K suffered a catastrophic seizure of the engine in his Panhard 24ct, the model is the 2+2 version of my 24bt - almost identical to look at but about 30 odd cm shorter. Another member kindly offered Adrian a spare engine which had been sitting under his bench for at least 40 years. The engine came from a car which had eventually been scrapped due to corrosion. The member had no idea of the actual condition of the engine but suspected that it may have been rebuilt at some stage. I volunteered to examine the engine in detail so it could be installed with some degree of confidence. Unfortunately there was a little delay as on 16th December I had my left hip replaced so I couldn't proceed until I had recovered to a reasonable degree of fitness. The engine was eventually collected from Cheshire and delivered to my home on 22nd February. I started by visually examining the engine and was pleasantly surprised at the apparent condition. I removed the sump plate and found that the interior of the engine was spotless with no trace of



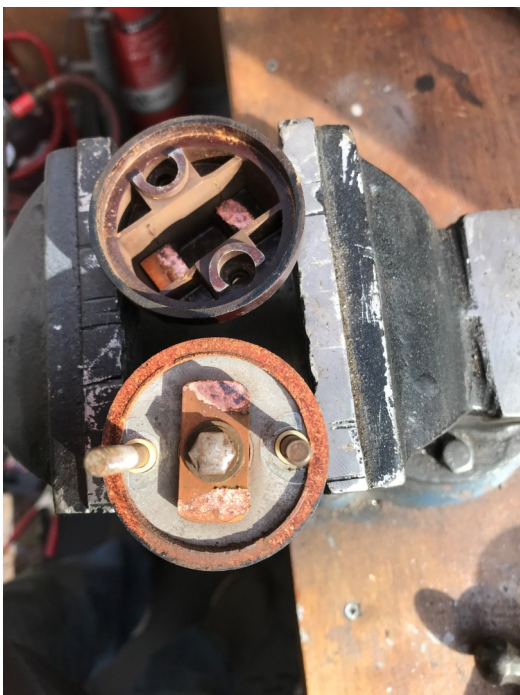
sludge or debris. I then removed the rear main bearing carrier to gain access to the rear slingers, these are the means of lubrication for the pistons and small ends on Panhard engines, and provide a good indication of internal condition. Again the interior was exceptionally clean and the slinger had no trace of debris. I was beginning to suspect that the engine had never actually run after a rebuild! I decided to reassemble the engine and check the compressions. On checking I found a reading of 175psi on the left hand cylinder but a struggle to achieve 80psi on the right hand one. I could hear a 'chuffing' from the exhaust port on that side but when I looked at the exhaust valve I was surprised to see the underside of the valve was shiny with no sign of carbon but some corrosion on the stem. I guessed that the engine had stood for 40 years with that valve open, so some surface corrosion was possibly present. I cleaned the stem, applied copious amounts of WD40, removed the rocker cover and hit the rocker with a soft faced hammer to re-seat the valve. I checked the compressions again and achieved 175psi on both cylinders. At this point I decided there was no need to delve any deeper into the overall condition, I fitted new gaskets and seals where necessary, however all the gaskets looked new, with manufacturers markings and even pencil marks visible on some, reinforcing the theory that the engine had never been used in anger! I cleaned all threads, used new nuts and spring washers where appropriate and I fitted an alloy camshaft gear supplied by the owner. (The original gear is made of a material called 'Celeron' - a composite material which can suffer tooth damage under certain circumstances - but personally I think that damage is almost certainly caused by failure of other components and alloy gears can be noisy!) This necessitated setting the valve timing correctly. This is not straightforward as there are no actual timing marks on these engines - other than one for TDC (top dead centre) on the flywheel. When I checked the timing of the distributor drive I found that this was incorrect. The drive shaft was two teeth out on the oil pump drive! The engine could never have run in that condition - which possibly explained the clean condition! This is surprising as the chap who carried out the overhaul (sadly no longer with us) was respected for the quality of his work. I took the opportunity to check the starter motor as the owner said the operation was a bit intermittent. I found that the brushes although worn, had some life left but found badly burnt terminals in the solenoid, which I cleaned up. I then thought it was time for a test run so I located a pallet to strap the engine down, attached the ancillaries (complete with another inlet manifold to replace the corroded one, which had been repaired but showed signs of leakage) I borrowed the battery from my 24 and, with a temporary fuel supply, 'pressed the button'. The engine started immediately and ran really well! It sounds great, shows good oil pressure and even ticks over smoothly. The owner collected the engine on 22nd March - just a month later. No doubt it will still require minor adjustment after installation but it is undoubtedly the basis for an excellent replacement engine with the potential to last many years. I don't think the owner was charged for the replacement engine as he donated his original one (which has incidentally also been repaired and has been successfully tested!) I only charged him for the replacement parts I supplied - which included the relining of his clutch centre plate - just £10 by Auto and Industrial Friction Materials at Arlesey.

This is an example of the goodwill and dedication to the Panhard marque displayed by the members of our great little club!





*Gaskets are pristine and Hylomar has been applied to the mating flanges lending credence to the reasoning that the engine had been overhauled but not run. All 'as clean as a siffler'.*



*Starter relay contacts before and after*





## To Edinburgh (and back) on the Great North Road in a 100E

### The Editor

My wife and I have travelled several of the main A roads since I acquired my bright yellow 100E Popular De Luxe some 16 years ago. We have been along the A2, A30, A4, A40, A5 and A6. This year we thought that we would travel the Great North Road to Edinburgh. By referencing the side-by-side mapping website at 'maps.nls.uk' it is quite easy to determine the original route of the Great North Road (GNR) and to identify where it has either been discarded, or used as a basis for the modern A1. This computation is greatly assisted by the map showing road names such as 'Great North Road', 'North Road', 'London Road' or a 'Roman Road', i.e. Dere Street, near Leeming Bar. 'Bar' is also useful in signalling an old toll bar or gate. There is a surprising amount of the Great North Road still in existence under the guise of other A road numbers such as the A6055 and A167, sometimes being demoted to B road numbers such as the B6474 and locally, the B197. Large swathes of the Great North Road can be driven without impinging on the A1 or A1(M). Many of the town and city centres that the road used to go through are now pedestrianised and so are inaccessible to the motor car. Though on the plus side some of the lengths of the Great North Road that exist independently between towns north of Markham Moor are fabulous roads for our cars, being wide, well surfaced and traffic free.



*The only extant road sign belonging to the old A1 Great North Road that we spied on the whole trip*



*My Pop on the Great North Road in Eaton Socon, on double yellow lines. Referred to by Charles Dickens in Nicholas Nickleby as Eton Slocomb*



*Wide open, swooping, traffic free roads were very enjoyable to drive on.*

Prior to our trip I spent a few hours drawing up a table to be used as reference to guide us along the GNR in 3 days to Edinburgh, returning on the attractive yet challenging A68 to Darlington. It may sound a bit odd as the distance shown on Goggle maps to Edinburgh, from where we live, is some 360 miles which can be driven in a modern in 6 ½ hours but where is the fun in that? My wife navigated and kindly and efficiently booked accommodation for the next night's stop, whilst we were on the road.

A few days before leaving I stocked the Pop up with a can of engine oil and a plastic bottle of gearbox oil and checked that my tool kit and spares box were as they should be. On the day of departure, I wedged two suitcases inside and then we were away. The closest the GNR approaches our area is at Graveley, a now quiet village, which once used to labour under the might of north and south bound traffic until a section of the A1(M) was extended from the Stevenage North junction to bypass it in 1967. We were soon on the original old Great North Road passing what was the largest and busiest petrol station on its length in its heyday, also purported to be the highest point on the road at 240 feet ASL at Jacks Hill. A modern bypass soon got in the way, but we navigated that to drive sedately through Baldock. Once on the other side the old Great North Road and A1 run on the same trajectory. The northbound carriageway of the now dualled road being the original alignment of the GNR and Roman Road. It is dead straight as it should be if it is Roman. Over another slight peak and then we diverted into Biggleswade High Street then back onto the A1, continuing in that style to our final destination. Some towns that have been bypassed by the A1 are inaccessible now. Some allow cars to get off but not back on, or the other way around. Stilton was one such village. We made a special detour to buy cheese of the same name. It travelled in the Pop's boot for about a week. I have not tried it yet.



*Coaching yard arch in an inn in Stilton*



Our overnight stop on the first day was at Boroughbridge. At one time a very important river crossing, like Ferrybridge, but now literally a sleepy hollow. It has been bypassed by a huge concrete bridge which spans the steep ravine of the River Ure. Whenever we had crossed this modern bridge in the past in our modern car, we had always wondered what was down in the valley. Well now we know. We know that The Crown Inn Boroughbridge is an attractive hotel and pub, part of The Coaching Inns group, and that it serves wonderful dinners to weary travellers. The next day after a quick check and top up of fluid levels on the car, we set off for Berwick upon Tweed, where my wife was born. Most of the day was spent on A and B roads that twist and turn around the modern sometimes (M) A1. Near Leeming Bar, that once dreaded stop when travelling in my younger days by early motor coach, we surprisingly parked next to a Red Arrow Hawk. It had once been a Gate Guardian for RAF Scampton, subsequently being won at auction by the owner of the very busy lorry Exelby Services, paying a reported £90,000.



*On leaving Boroughbridge we filled up at this old-fashioned garage. I drove over a rubber tube to alert the apprentice car mechanic that a customer had arrived for fuel. Haven't done that for a long time.*

*My Pop in front of XX306 a foundation Hawk T1 aircraft of the Red Arrows. Built at Duxford in 1980.*



Durham was the next stop to see how close we could get to the famous Cathedral. Quite close as it turns out. Always wanting to see what is up the next road we impinged on the chargeable Durham City historic peninsula area. I never knew, until that moment that there was such a thing. It only cost a fiver, happily paid later that night whilst in a room in Berwick.



*The Pop and Durham Cathedral. Event erectors were busy putting up a marquee for the University's graduation day. I did ask if they could take it down again, so that I could get a better picture, but they demurred.*

During the whole trip, and I am sure that we can all relate to this, many people waved, hooted from modern cars, or came up to talk and retell stories of their own history with, in my case the Ford 100E. They were all friendly and complimentary, even the ones that I held up on the A68. I would often pull over to let the inevitable convoy pass and often got a toot of acknowledgement. After Durham we pulled up at the wonder that is The Angel of the North getting excited about crossing the Tyne Bridge a few miles further up the road. The sculpture made of 208-tonnes of steel is very evocative, perhaps because it is called an angel, and it deserved a pat, where many other people have stroked it, polishing the metal. Getting across the Tyne Bridge was slightly problematic as the 1960's flyover that used to lead up to the south portal is collapsing and has been shut for several months. We eventually navigated the diversion in place and crossed the bridge successfully. The A1 at the end of Newcastle's Western Bypass predominantly follows the route of the GNR apart from Morpeth, Alnwick, and the small village of Belford so we willingly had to visit these towns stopping for the night at Berwick upon Tweed, which has three bridges cross-

*The Pop and the Angel of the North*



ing the river. The medieval single lane bridge, the more modern 1920s concrete broad bridge and the magnificent Royal Border rail bridge designed by Robert Stephenson and opened by Queen Victoria. The GNR used to cross the river on the old bridge and then the later bridge. The next morning, we set off for the relatively short journey to Edinburgh. Crossing the border was a bit underwhelming. The three Saltire flags hung limp on their poles. Many travellers had thought it a clever idea to affix random stickers to all the hardware at the layby dedicated to the crossing, thereby disfiguring it. The A199 took us into Edinburgh entering from the east. The GNR actually goes north then slightly south west to get to the capital. We negotiated the tram lines, traffic and swerved to avoid the Edinburgh LEZ, although I found out later that, as in London, my car is exempt. We then headed for the Forth bridges at Queensferry. What an amazing experience this was. We first went north on the brand-new spectacular road bridge carrying the M90, then south back across the older suspension bridge opened in 1969 and now sadly underused. We stopped for lunch in the old village of Queensferry that once was busy with ferry passengers now hard by the famous Forth rail bridge. What a tremendous structure this bridge is, a wonder of the world.

In the evening, we noted that the car had covered 429 miles between our home to Edinburgh. It worked well. The engine only stopping a few times whilst in traffic but always restarting when cranked.

Staying in a brand-new Edinburgh Travelodge by Turnhouse Airport, had its benefits. I crawled under the car in the spacious car park to check the gearbox oil level. Before the journey I had worried that the gearbox would be the range limiting factor due to its rate of oil consumption. I was therefore surprised and pleased that the level was fine. I checked the diff whilst I was there too, and this was good as well.

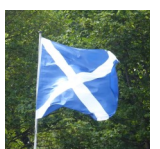
We set off for home taking the John McAdam designed A68. The route north of Corbridge follows the Roman Dere Street. The Pop took the gradients and twists and turns well. The terrain is rugged along the length of this road. Snow poles and gates adorn the hillier Scottish sections. We crossed back into England at Carter Bar. Joining the modern A1 at Darlington we set ourselves the task of covering as many miles as possible. This part of the journey was quite thrilling as, in common with a lot of classic car owners, I know the intricacies of my car intimately. A few years ago, I rebuilt two engines and refitted the original back into the car. Likewise with the gearbox, prop shaft and rear axle. When 'cruising' at 55 to 60mph I was amazed that it was all operating perfectly. Being a long stroke engine, not designed for motorways, I delighted in the fact the engine was not purring exactly, but it didn't sound too stressed. The auxiliary gauges showed an oil pressure of 25psi and a water temperature of just under 200°F for hours on end. What a great testament to Ford's engineers' abilities of the 1950s, and earlier.

The advantage of the modern A1(M) is that it has no sections of 'smart' motorway, I hugged the inside lane to be close to the hard shoulder all the way. The more problematic sections are the dual carriage way stretches, especially where there is a crash barrier along the nearside verge. There is nowhere to go in case of a breakdown. Ripon was our last night stop. We finally diverted to Melton Mowbray to visit the Olde Pork Pie Shoppe to buy an olde pork pie, or two. We got home safe and sound having had a great exploration of the majestic Great North Road. I unloaded the car and put it in the garage, giving it a pat to acknowledge its good behaviour.

The question now is: 'Where to next?'



*The Pop and the Forth rail bridge*





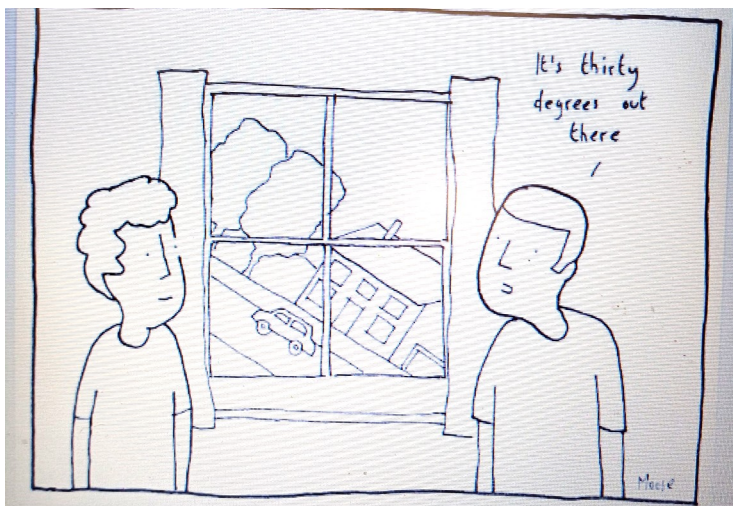
## Why did the Great North Road get left behind?

This may provide the answer.

There are currently 38.3 million cars in the UK compared to 383,525 in 1920.



*I rather like this picture as it brings back memories of being stuck in holiday traffic jams and, I have counted at least 7 100Es. (Their engines may not be running due to fuel vaporisation). The picture may also show a motorway under construction. There seems to be a hard shoulder. Note the lack of central barrier.*

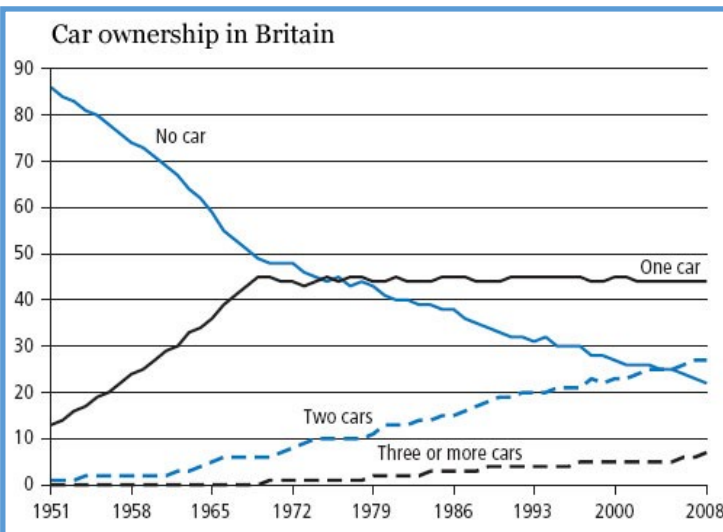


Via Andy Bevan

Rising fuel prices don't affect me.....I only ever put £20 in

## A warm welcome to a further three new members

Simon Robson, Paul Stirland and George Stojasavljevic



Despite people driving far more than in the post-war period, deaths on the road have declined since the mid-1960s. Fatalities rose sharply as more people got cars in the 1950s and 60s, then fell dramatically. The post-war peak was 1966, when 7,985 people died on the roads in England, Scotland and Wales. From that year all new cars had to be fitted with seatbelts - though they only became compulsory in the front seat in 1983 and the back in 1991. These legal changes were accompanied by hard hitting advertising campaigns. Speed cameras have been linked to a fall in accidents. The amount of traffic has grown greatly since WWII, so road safety has improved even more dramatically than the total fatalities figure suggests. This trend is replicated across the world. Improvements were not inevitable and have been brought about by the "three Es" of road safety policy: engineering, enforcement and education. Road engineering improvements improve car safety; straightening out dangerous bends or blind summits. There has also been a rapid fall in the number of people killed in drink-driving incidents - from 490 in 2006 to 220 in 2010. Improved safety has lots of other possible factors, one being that young people - who are more likely to crash - increasingly interact by the internet and smart phones, making driving less essential.

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The current Sparkplug may be viewed and downloaded from the club website.