



The Crankhandle

May 2023 Issue 80

NEWSLETTER OF THE HEREFORD AUSTIN SEVEN CLUB



A typical scene from our **Drive it Day** on Sunday 23 April 2023.

Dave Rusher (red jacket) looking worried with his broken-down 1933 RP. It was so remote that there was no phone reception, and there was talk of having to get a breakdown truck. By magic, Tim Bradley(Left) produced a spare distributor, which Wizard Gerwyn fitted within a few minutes, and we were off again.

There were 16 A7s, one Morris Minor, and one modern, together with 34 members, who met at the Crown Inn at Dilwyn for a bacon sandwich and coffee, before setting off into the mid Welsh hills at 10am. Only 2 cars completed the whole 73 mile route: Jeremy and Tessa Plummer, who are completely new to Sevenning, and have only owned the car for two months. It is a 1932 Austin 7 RN saloon , previously owned by Stuart Howard.

Eddie notes that when he found Jeremy's car broken down at the side of the road, there was a complete loss of battery power. Jeremy thought a fuse had blown, Ron suspected a loose battery terminal, and these were checked and found to be OK, but the battery isolating switch had turned itself off. This switch was situated on the passenger seat support frame immediately behind where the passenger feet reside, so perhaps it was accidentally hit by the passenger's feet, or perhaps it was not in the fully 'on' position initially.

The only other finishers were old hands Eddie Loader and Rocket Ron, taking 4 hours and 20 minutes.

Julie James, with her daughter as navigator, broke down, needing a new condenser on her Opal, (see right) and that diagnosis took a bit of time, so her group used a short cut once she was running again. You can get the feel of the scenery here, at 1,250 ft above sea level!



Malcolm and Jennie Lyons' Chummy had a fuel blockage, which again took time to repair, and also had to take a short cut. In total we had a 25% breakdown rate, but all were fixed relatively speedily, with help from club members.

The photo right shows the relief at journey's end, all safely back at the Crown, Dilwyn, and enjoying a roast lunch. Thank you again to Pat and Jan for organising a great day.





A new car has entered the HA7C fold!

Robin Gibson writes: I've been reunited with a Chummy which I regretted selling as soon as I had done so, back in 2005. I had tried to buy her back many times previously, knowing that she was on display in the Meadowvale Garage Llanrwst for many years. She seems to have been hardly used since I sold her.

Does anyone know of any tricks to keep the hood watertight for a short time? I wondered about the wax coating for coats, or perhaps spraying with one of the silicone sprays? Any ideas welcome!

Also, a small but lovely little and original item has gone missing in the period.

A **brass dashboard plate** stating that the car was supplied by **Braids of Colwyn Bay**. If anyone knows of a replacement I'd love to hear about it, although that is very unlikely.

Under the rear seat I found several items from my brief ownership from 2002 -2005. There was still a laminated page explaining some of the car's history (written by myself for a local rally) as well as the rally entry form for 2002. Incredibly there was also a plastic rally plate for the run we did with Ian Glass of Denbigh in 2005 - his NTPR run at Llandrindod Wells. My young 11 year old son and I drove there and back from Llandudno, our then home town.

We had an **exciting incident** on the return journey when the offside **rear wheel** parted



company with the car.... I had even checked for wheel nut tightness all round before starting of course. It occurred near Dolwyddelen at relatively lowish speed on a busy road. Fortunately all the traffic stopped and some helpful walkers leapt the stone wall on the other side of the road and recovered the wheel from a field full of sheep. It had been extraordinary to see the wheel take off so quickly! A quick jack and borrowed wheel nuts saw us on our way. Oddly there appeared to be no indication that the underside had been damaged. I checked again today and I can just make out some paint missing in a small area. Unsurprisingly I'm about to buy **racing nuts** this time round... I have no desire to repeat that particular incident!

I was very fortunate to **buy the car for £4,500 in 2002** which even then seemed a really good price. The chap selling it was a retired factory owner near St Asaph and on visiting him, I realised that he wasn't short of a few bob, as he had built a beautiful stone garage which housed around 10 cars, mostly ones from around 1900. Each car had its own door around the building perimeter. His pride and joy was a white Rolls Silver Ghost from around 1910.... just like the one Dinky produced. He bought the Rolls from the Pebble Beach concours show, goodness knows how much that cost. He proudly started the car for us by advancing the ignition – without using the starter or handle. For years I wondered how that was done. He also did the old trick of an old threepenny bit on the engine.... of course it didn't move!

He explained that the Chummy was too new for him really, he preferred the really early cars. He was a lovely chap and stayed in touch for years, and sent a photo of himself and his wife on the Stelvio pass in their Ghost. I knew the chummy would be good as he employed a permanent mechanic to keep on top of his fleet.

Just hope I can keep the car up to his standards

Tight-spot Oil funnel

The Ed found this flexible oil funnel in a boaty website. It is ideal for the chummy, just getting between the ignition retard/ throttle control rods, and the magneto



EXTREME TOURS

Gez Parton is an extreme Austin 7 adventurer in his **1936 Austin 7 Mk 1 Pearl** that he has owned for 12 years.

2021, he drove LEJoG (**Lands End to John of Groats**) and back to his base in Sussex
2022 he drove to the Scottish Austin 7 Rally and the Centenary Rally in the Cotswolds.

This year he plans to travel the **whole of the mainland coastline of Great Britain** (including Scotland and Wales). This is about 5000 miles, planned for 1 month (about 200 miles per day). Email him to see his route!

He is raising money for the RNLI (Royal National Lifeboat Institution [Ed: a cause close to my heart]). To donate, he has a justgiving page: <https://www.justgiving.com/page/gez-parton-1679494033534>

He **needs accommodation** on route: bed or garden for tent, please email him gezparton@hotmail.com.



Scuttle Headlights on 1927 Chummy

The Ed changed the bulbs in the scuttle mounted headlights, thinking he could use them as daytime running lights. Nearly all moderns have lights on during the day, and drivers get used to looking for lights rather than a car, so he reasoned it might be safer to have them. He hadn't used them at night until this week, when to my surprise I found that the "sidelight" position gave main beam, there being no sidelight element, and the "headlight" position on the switch gave dipped. A further bonus was he could see where he was going!

Chairman's View.

It is great to see that numbers continue to rise at our monthly meetings at the Richmond Place Club and very rewarding for your hard working committee. Our March meeting focused on a 'feely bag' activity which Julia James made different size bags for and Bob and Heather Garrett put together a series of objects; some Austin Seven and some household. The winners for the evening were Charlie Miles and Ron Sadler but I can confidently say that fun was had by all.

Spring has well and truly sprung and to mark the start of our Austin Seven year, Jan Haywood and Pat Caine put together a wonderful 'Drive-it-Day' route covering three Counties. You can read all about it elsewhere in this edition of the *Crankhandle*.

Our 'Shed Nights' have now resumed at Frank Sibly's Farm and the most recent on Tuesday 18th. April, was well attended. The subject matter was lubrication which Eddie loader explained the *why, when and how* to do it.

Keep an eye on the Events Calendar as different activities are being added all the time. The Committee is attempting to include some interesting talks and films on several monthly Club evenings, as well as continuing with the popular 'Nogging-and-Natter' ones. The next forthcoming regular meeting on **Tuesday 30th May features an expert panel answering your technical questions on Austin Sevens**. Be sure to come along as it will be certain that all of us will learn something of value. **It will help the panel if you can furnish them with your question before the evening** but if you cannot then, just like *Gardeners Question Time* on the radio, ask it from the audience!

From the Pit. I must get back to the workshop and down into the inspection pit; the current activity is rear springs! Watch this space as they say.

Happy Sevenning,
Michael.

Secretary's Corner

I thoroughly enjoyed the HA7C Drive-it Day outing on 23rd April. A jolly good turn-out for a small club and an excellent 70 odd mile route along 'proper' Austin Seven lanes taking-in some delightful mid Wales scenery. It was good to see most participants displaying FBHVC rally plates supporting the 'Childline' charity. The Crown PH in Dilwyn looked after us well with bacon sandwiches prior to kick-off and jolly good roast meals upon our return.

Another recent event was our 'Feely bag evening' on 28th March - a first for the HA7C which seemed to prove popular. Happily, everyone scored over 50% and nobody achieved 100% (not quite anyway).

Happily, the A7CA recently completed its film of last year's A7 Centenary event at Moreton in Marsh. This is a very good watch and includes a major UK cinematic debut appearance for Julia and David - and can be found here:

<https://a7centenary.com/film/>

News from the workshop – Vintage H2 1.25" SU carburettor completely rebuilt (EB needle) and attached to tasty pressure-fed engine. Now ready for installing in 'Ulster Rep' car



Happy motoring Bob G

Editorial

As explained previously, I am less mechanically-minded than most club members, and here are my exploits since I last wrote.

Schoolboy error number 1: Set off on the first sunny day of the year to drop daughter back home. All going well on return journey, until car lost power, and went slower and slower down hill, until I was just able to coast partly into the verge. Lots of ghastly causes crossed my mind, until the thought occurred that we might just have run out of petrol. Unlike the luxurious Ruby, I have no dashboard petrol gauge.

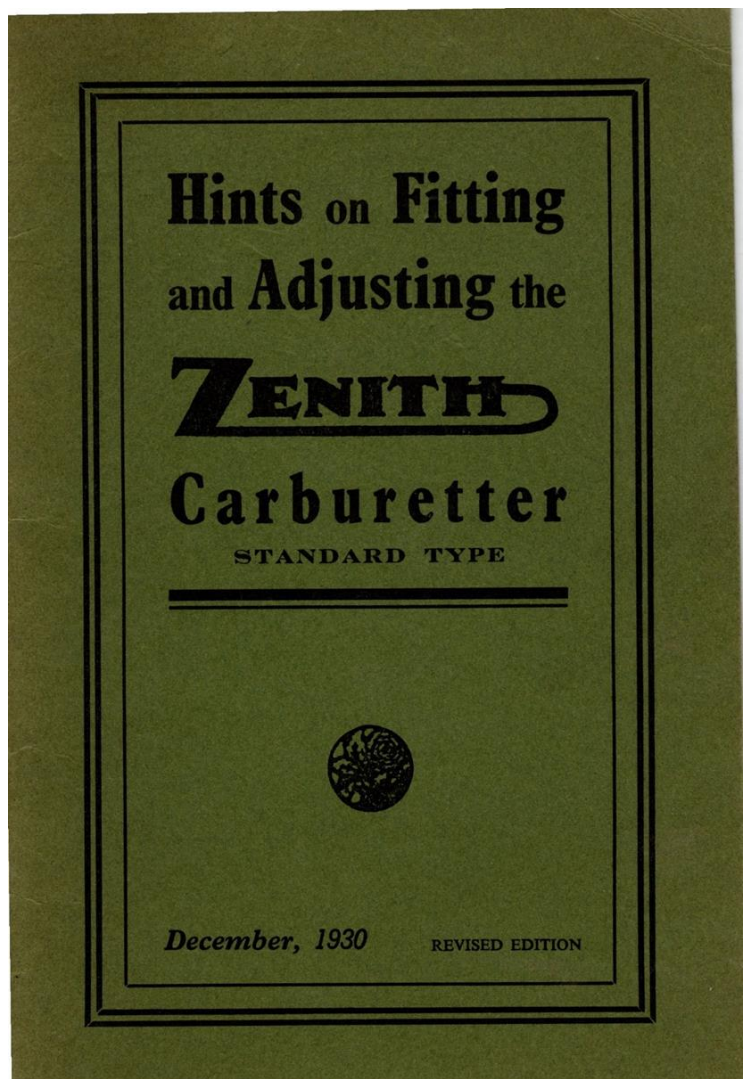
Good samaritan in white van stops to ask if he can help. Then Daughter rings 5 minutes later to say her friend has spotted my plight.

Request assistance from Mrs Editor, saying there is a can of petrol in the garage. Put said liquid into tank, noticing it looks a little red, (error number 2): oh well it is 2-stroke, so won't put too much in. Car starts but quickly stops. Get out tow rope, and meander home pulled by Mrs Editor in SUV, which looks quite monstrous when viewed from the cockpit of an A7, five yards behind it. Get home and collapse on sofa.

Have time to start thinking:ahh could it have been diesel? Next day, disconnect fuel line at carb, and drain it all out, and go and buy some Super, and put that in. Endless cranking with no result. Squirt of Easystart got it to fire once. Changed all plugs. The modern plugs (rather than the Lodge it came with) have narrower top threads to attach the lead to, so the leads are rather loose on them. Inverted the top nut on the plug in hope of getting greater contact, as one end of nut is flat and the other is recessed (why is that?). Still no action.....

Took one plug out, and observed it was sparking. Logic now suggests that problem is likely to be no fuel getting to cylinders. Did not read any manual, but just took the float chamber of the Zenith updraught apart, and cleaned (it seems to be a remarkably simple component!).

Engine now started. Great relief. Relax by consulting Woodrow's A7 Manual on the subject of carburetors which says "General Dismantling should not be undertaken" and also the A7 Companion (which has nothing at all to say about them).



Discuss with HA7C Technical Advisor who is on his way to confession, and as engine now running, he is asked to offer thanks for the Chummy's recovery. In passing, the TA also advises that it is sometimes possible to get the engine started by putting a teaspoon of petrol into each cylinder by temporarily taking out the spark plugs). Once started any blockage may well clear.

On reflection, I presume my problem was oily diesel gumming up the carburetor jet?? I doubt our members have any idea, as no-one else has probably tried to run their A7 on diesel fuel. I have also learnt that to fill the chummy petrol tank means keep going to the brim, as there is no feeder pipe down to the tank, and the top of the tank is level with the filler cap. The normal petrol pump will cut out when the tank has only got 3 gallons in it. I fully expecting to have further unforced errors to report in two months time, but as usual I would welcome **anything** from members, to include in the next Crankhandle

Events Co-ordinator

Alvis engineering workshop

This new trip is on Saturday 5 August. Please let Kip Waistell know if coming ASAP. Contact kipcarwaistell@hotmail.com or 01981 550293 Meet 10am for tea and biscuits at The Old House Vowchurch, HR2 0RB

All other events are now best found on the website.

Pre War Prescott

Ian Grace is drumming up interest for Pre War Prescott and sends this list of Sevens that have signed up so far.

1	YSV 275	1938 Austin 7 Special	Levien, Charles
26	AWN 487	1937 Austin 7 Ruby	Nutbeen, Mark
28	VF 3888	1928 Austin 7 Chummy	Holmes, Paul
44	XX 7637	1924 Austin 7 Chummy	Bromley, Colin
65	VY 8302	1936 Austin 7 Cambridge Special	Bullock, Julius
96	RAS 963	1934 Austin 7 Sports	Wallom, David
99	PK 8456	1929 Austin 7 Chummy	Boroweicki, Matthew
101	DXR 811	1937 Austin 7 RTC Special	Piper, Rayner
105	RT 2609	1927 Austin 7 Chummy	Bradshaw, Adrian
120	FV 7976	Austin 7	Crook, David
158	AHX 312	Austin 7 Ulster rep.	Belcher, Dennis

Plenty of space for more!

Webmaster Report

Some updates have been made to the website (on top of the regular events page updates). I have put in some more technical articles. Also the video of Annie Peake mistreating her Chummy can be seen on the home page. I have also placed a link to the Centenary Week film on the home page.

I shall be putting some thought into further development, such as displaying images of events that the club membership have gathered at.

Any input from the membership will be gladly received.

Roly's Adventures

Roly and David Southcott visited The Old Bull at Inkberrow in April in their box saloons for the Vintage Minor Register meet.

Roly's saloon, and unknown A7 in front of it.



Mayday Bluebell walk at Bosbury House Roly in his TR, David, Julie, Annie Peake and 2 other club 7s:



Feely Bag evening



The smooth progress of our regular meeting at the Richmond Club on Tuesday 28th March was interrupted by a fun 'feely bag' session.



Julie kindly (and very skilfully) provided twelve magnificent

numbered bags, into which Bob & Heather sealed - four common household items and eight Austin Seven components.

Twelve teams (of mostly two persons) were tasked with identifying the mystery items by feel alone and completing their answer sheets.

A strict marking regime was applied by 'Judge Bob' and reassuringly everyone did rather well, no teams scored less than 50% and nobody quite managed 100%.



The winners, with a brilliant score of 96% were: Gerwyn, Pauline, Tessa & Jeremy, the only team of four - surely a coincidence? They were duly presented with a rare and valuable



A7 Centenary mug.

Members seemed to enjoy the 'feely bag' session – it certainly prompted everyone to get on their feet and mingle.

Perhaps a repeat next year? Ed

AUSTIN 7 Trialling with the Vintage Sports Car Club (VSCC)

Herefordshire Hill Trial March 18/19th 2023



Annie Peake writes: The Herefordshire Trial, along with the Welsh Hill Trial, are my favourite events of the year. Two days of wonderfully exciting driving, with different challenges for each hill, 8 on Saturday, 5 on Sunday.

Austin 7s formed the majority of the 108 entrants, with over 70 in my class alone, making it ridiculously competitive for anyone aspiring to a trophy.

For those who are unfamiliar with hill trials, they form a series of off-road sections, normally on private land, where a course has been set out with 25 markers. The aim is to reach the 25th marker without stopping or hitting any of them. Added points are given in a stop/restart section, always made as difficult as possible. Competition to secure an entry is fierce, particularly for the Herefordshire, Welsh and Cotswold Trials. If you fail to submit your form within 3 minutes of the entry going live, you will be put in the pending queue, possibly never to be revisited.

Our daughter Minna decided she wanted to drive with her boyfriend Mat, and could she please have my car, if she kept asking nicely? So, I was dropped. Well, it's important that the younger generation drive our old cars, and if I could find a ride elsewhere in another car, I was happy. (As it happens, I ingratiated myself into a Bentley with Ben Collings). Min is an excellent driver and my Chummy was in good hands. Together with Ben

Collings' niece Lucy, in her Lea Francis, we formed a posse of three cars, moving from one hill to the next.

A large part of the attraction of vintage car driving is the people it draws in. Everywhere are bands of enthusiasts. Their interests tiptoe between loopy obsession and casual interest. Hot-air balloonist, auctioneer, nurse, doctors, school children, metal detectorist, and farmers all sit happily alongside grown-up car engineers and restorers. Enthusiasm always makes me smile, and while I am not interested in rummaging around in sheds and car boots, they are.

March suffered biblical amounts of rain, some of it delivered on the first day of the trial. Hoods were up for a lot of cars, (very non VSCC behaviour), but not for my Chummy. Min and Mat had driven an open 1898 Léon Bollée three wheeler for 9 hours in a monsoon during the London to Brighton Run in November, so this was peanuts.

For those who know how to slip and slide, the weekend was amazing. On Chandos, our first hill, the Bentley slid at full tilt, missing a prominent tree by less than a whisker. I was firmly asked not to yelp as it put the driver off. Minna managed to avoid the tree, but she took the course in a more ladylike manner. Ben is ever the showman for the onlookers.

A first this year was a friendly but exasperating encounter with the local hunt, complete with supporting off road bikes, vying with the VSCC for poll position at 10am. They chose Marcle Hill to exercise their horses and hounds, and the wait of cars in line was sufficiently long that 7 deer came strolling by to look.

Every hill was a challenge in these conditions and the new hill in the Forestry Commission near Weston under Penyard was probably the muddiest, and it caught many of us out. The cars ahead of us either couldn't reach the start for slipping, or managed one point only. Minna did well to reach marker 8. Not much fun if you are a marshal on marker 25, waiting all day in the rain and only 3 cars make it as far as you.



Minna scored full marks on Royal Bounty, a horrid winding track of mud and ruts on the Duchy estate. To me that was a huge achievement; I don't recall getting beyond halfway whenever I drove it. Compare that hill with Ancient Britain, the most beautiful in my opinion, and you realise just how lucky we are a) to drive these wonderful cars and b) to have access to such sections of private land. Ancient Britain is also the estate where I pick

up with my working cocker spaniel, so I am naturally biased, but the cuddly drovers' road, the heavenly view, and a final mad acceleration down into the bracken must make it one of the best trial hills.

Wherever a car breaks down, (and there are several), help is always at hand. Ben, and his two bouncers Luca and Steve, positively leapt out of the car to help an Austin Gordon England after we had finished in the Forestry Commission. The 3 lads pulled out their tool kit, diagnosed a distributor problem, and much to the relief of the lady driver, gleefully set to. Yours truly checked on the favourites for the 4.15 at Kempton from the comfort of the running board.

There are now new headquarters for the Herefordshire trial, at Hall Court, in Rushall, thanks to Robin and Dawn Harcourt Smith We meet there first for scrutineering, nattering and coffee, and then return there at the end of the weekend, for extra nattering, coffee, and even to hear the results. It was a successful debut for Hall Court, much appreciated by all.

You need to know about the marshals. What they do on a trial is this: scrutinise your car beforehand, and then spread out through each hill, normally about 7 per hill. They will carefully log the achievement of each vehicle through the section, and help the driver negotiate a tricky descent if a car fails. They are aware of time pressures on the day and try to keep cars flowing as quickly as possible. Some of them even have radios to communicate.

This is the first year I have helped sort out approximately 50, sprinkling them through the hills for the weekend. Try herding cats you don't know. My list must have been altered 20 times at least, and even on the Saturday morning, what I thought had been arranged finally, really wasn't. By the end I let it go, and decided that each hill would manage, provided there were at least 5 or 6 people on each. Nobody cried, and no one that I know of had a hissy fit, so it somehow, sort of, worked. Given that every marshal gives up their entire weekend for free, to stand in the rain for other drivers' pleasure, they have my full admiration. Even if they do keep changing their minds.



Minna didn't win an award, but she had a wonderful confidence building couple of days. She is now hinting that she wants my car for the Welsh Trial in October....

Here is a clickable link to a short video of part of the hill climb:

<https://www.ha7c.co.uk/images/video/Annie-Peake.mp4>

Shed Night Tuesday 18 April 2023: Engine Lubrication

Thirteen 'pupils' were instructed by Eddie the HA7C Technical Advisor, including 3 new members, Jeremy, Dave and Robin.

Engine oil not only lubricates, but also helps to dissipate heat.

Engine oil started as a monograde viscosity, without

additives. However, in the 1930s, better engine oils were required to suit the new aero radial engines being developed in preparation for war. Long-chain polymers were added which produced a multigrade oil, i.e. an oil that keeps its viscosity fairly constant whether it is cold or hot.

The downside of these polymers was that they burnt to leave a hard shellac under the pistons and elsewhere, which would flake off and block the oil circulation passages. To counter this, detergents were added. These engine oils were very expensive, and so were not used in cars until the 1950s.

The Mini of 1959 needed a different engine oil as it had the gearbox in the engine sump. The oil was damaged by the gears, and required an anti-wear additive, in this case zinc. This was subsequently found to cause rather toxic emissions.

Shell X100 was the first multigrade oil for cars, and was released in 1959. It was called multigrade, but did not specify what exact viscosities it consisted of! Multigrades cost about twice as much to produce as a monograde.

Austin 7 engines are quite tolerant to different oils, and apart from 20w-50; it has been known for them to be run on 10w-40; 15w-40 or even synthetic oil. Racing A7s use specialised oils. Do not use 20w-50 in the gearbox, as it will not get hot enough to change to the higher viscosity, and e.g. a monograde 40 would be better. When first built, the A7 would require an oil change every 1000 miles, and a different viscosity was



used in the winter months to the summer months. A modern oil, such as Halfords classic 20w50 is so much better than the oils from the 1940s, that an annual change is all that is needed for most usage, although I'm aware that some members with sporty engines change their oil more frequently. Monograde oils don't have detergent, whereas multigrades do. If a car has previously only had a monograde oil, the subsequent use of multigrade, risks causing blockages as the detergent releases old deposits from the oil passages. If you wish to run on a multigrade when getting such an A7, then you need to thoroughly clean-out and flush the engine oilways. -Eddie described having done this in an extreme case, by running the engine for a minute or so using diesel as a very thin engine oil. Several members expressed alarm upon hearing this, saying they certainly wouldn't risk it with their engines. It is normally necessary to remove the engine to achieve thoroughly clean oilways.

It is difficult to find out what temperature a multigrade changes from one grade to the other, although it is known to be high (perhaps over 80°C), and an A7 probably never gets hot enough for the oil to change to the higher viscosity. Engine oil takes a lot longer than the coolant to heat up, probably only plateau-ing after 10 (or more) miles of travel. Eddie recently had the experience of climbing Fish Hill up the Cotswold escarpment on the hottest day of 2022, when his oil pressure shot up. Initially he thought the reason was that the oil jets were blocked, but he had to continue to the top of the hill, and by the time he found somewhere to pull in, the pressure had come down. He thought this showed that the oil had changed viscosity under these extreme conditions. In all his years with his Austin 7s, he has never had to unblock oil jets on the road.

The earliest cars had no **oil pressure** gauge. Within a year or two, cars had an oil pressure button, that popped out when the oil pressure went up. However, this just indicated that the oil was circulating, not that the oil pressure was too high. Presumably if the oil button did not pop out when the engine was running, this meant that the oil pump had failed, or the engine had no oil.

Subsequent cars had a gauge that read up to 10 lb/in², until the 3 bearing engine was introduced, which had a gauge that went up to 20lb/in². This increase in pressure was brought about by having smaller jets. It is widely believed that oil pressure in an A7 should be about 1 lb/in² per 10mph of speed in top gear with the engine fully warmed-up. The oil from the jets squirts into a trough in the crank, whose rotational approach speed creates sufficient pressure to feed the big end journals. Finally, a radial drilling flings-oil out onto the big-end bearing by centrifugal force. Oil escaping a drilling in the con rod combined with the general maelstrom of oil mist in the crankcase will then lubricate the little ends, pistons and main bearings.

Because oil pressure reduces with low engine revs, it is bad for the engine to be allowed to strain at low revs, and it is much better to change down a gear. If you rebuild with a

Phoenix crank, the holes won't exactly align with the existing jets, which should be bent slightly (ideally after annealing) to ensure the oil is directed correctly. This is often also a good idea with the original Austin crankshafts.

The **oil pump** is located at the lowest point of the crankcase on the left hand side. It is driven by a shaft from a gear on the back end of the camshaft. The camshaft is on the left side of the engine, and we were shown the difference between an early and late camshaft, with the later one having an extra eccentric lobe to drive the petrol pump found on later cars. The oil pump is a vane pump, where the rotating inner solid cylinder is inside an eccentric outer chamber, and the vanes (which are spring-loaded radial flaps) move in and out of a transverse slot in the inner cylinder, following the wall of the outer chamber. The only thing that can really go wrong with the A7 oil pump is that these springs can break. Oil enters the pump through a hole in the outer chamber, which is immersed in the sump oil, so no suction is required. The exit hole for the oil is at the point where the eccentricity of the outer chamber meets the inner rotating cylinder. This takes oil up to the horizontal gallery. Just above the oil pump, and just below the flange in the crankcase is a large machine screw which houses the oil pressure release valve. This pressure release valve releases excessive system pressure (especially when starting from cold) and prevents damage to the oil pump or its drive gear if there is a blockage in the gallery etc..... The oil pump can be uprated by boring out the chamber of the oil pump which will increase the volume of oil flow.

Lubrication system. As discussed, big-ends are lubricated mainly by the two gallery jets and the lubrication of the pistons and main bearings etc is by an oil mist created in the crankcase. The oil from the pump goes up a vertical channel to the top of the crankcase. One branch sends a pressurised feed to the rear camshaft bearing, while the main channel crosses over to the right side of the engine, where the gallery runs longitudinally, with 2 oil jets along its route, until it reaches the front of the engine. It then passes in a channel from the right side of the engine to the left, where it pressure-lubricates the front bush of the camshaft, and some oil will leak from this bush to the hub of the top timing gear, which has 2 slots in its hub face, that fling oil up onto the teeth of the timing gears. These timing gears are highly stressed, and can rapidly wear if lubrication is not good, and when rebuilding, the gap between the hub of the top timing gear and the camshaft bush needs to be carefully lapped to a clearance of just 2 thousandths of an inch.

The rear crankshaft main bearing is a single roller type, whereas the front bearing is more commonly a double, angular contact ball bearing. These main bearings are lubricated by the mist of oil, which can be demonstrated by accidentally leaving off the oil filler cap when the engine is running, when oil will go everywhere in the engine compartment. Crankcase ventilation is needed in case valve guides are worn, valve seating is imperfect, or piston rings & bores are worn. An A7 has inherently poor ventilation with only 4 small

holes in the valve chest cover. Ventilation can easily be improved by adding a breather pipe to the valve cover and connecting it to a simple catch tank.

The crankcase has core plugs that were needed to allow venting of air in the casting process. After casting these holes were machined and plugged, but can blow out in frosty conditions,

The **oil filter** in the A7 is just a mesh in the sump, with relatively large pores, unlike the micron pores of a modern oil filters. Bypass oil filters did not come in until the 1950s and claim to intercept and filter about 10% of the oil every circulation.

When changing the oil, the fibre washer should be changed. A useful tip to guarantee a good seal is to boil the washer in water for 2 minutes, but you should only do this once. The sump is made of sheet metal, and easily goes out of shape, thus not forming a good seal with the crankcase, so Eddie has developed a reinforcing framework to keep it as flat as possible to reduce oil leaking.

Development of grease lagged way behind improvements in engine oil. Early grease was tallow (i.e. animal fat, which gave it the yellow colour). Mineral grease is one of the last products of oil distillation. Its development was driven by innovations in car design, e.g. the Mini had 10" wheels (all cars before that had wheels of at least 13" rim diameter). This meant that the wheel had to rotate many more times per mile, and required upgraded wheel bearings made from Lead Iridium, which needed a new type of grease.

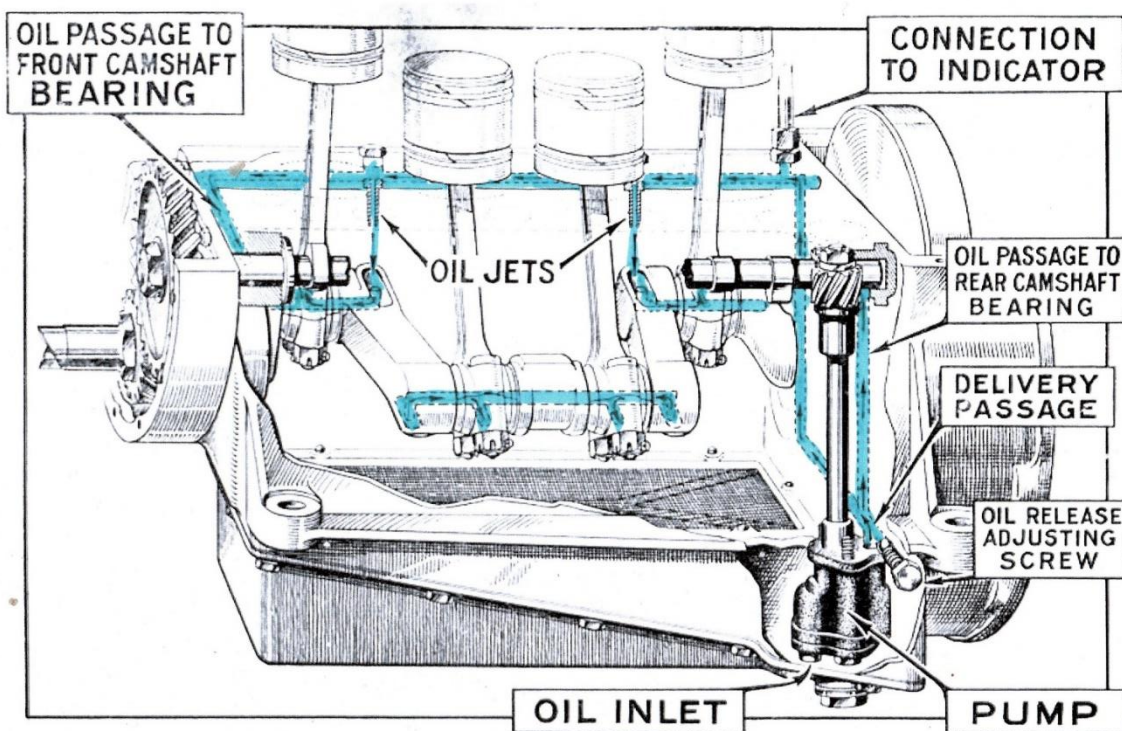


Diagram courtesy of Dorset A7C

Stale petrol in your A7

Stale petrol in your A7: need you worry?

In a word: no... but let me explain why.

Petrol is a mixture of organic volatile liquids which burn and thus fuel an internal combustion engine. Different petrol grades on sale on a typical filling-station forecourt are just mixtures of different proportions of these volatile liquids and additives.

Crude petroleum from an oil well is a mixture of 'fractions': oils each with a range of volatilities (boiling-points). Petroleum refineries around the world process crude oil by separating the fractions, making a range of products. Each of these products is made to a specification, according to the needs of what that product is required to do. Examples are: to power a jet engine (aviation fuel); to run a motor engine (motor fuel – petrol or diesel); to lubricate machinery (lubricating oil); or to be the thick, sticky fuel which powers industrial oil-fired boilers.

The different products have different boiling points, and the boiling point range of each is a key aspect of its specification. We all know that petrol evaporates more readily than does paraffin which does so more rapidly than lubricating oil and so on. When petrol evaporates, it is the most volatile parts (the 'fractions' with the lowest boiling points) which escape soonest – so that what remains is stripped of its most volatile content.

This is why petrol left in the tank of a car which receives little use will 'go off': the most volatile 'fractions' will evaporate into the atmosphere and what is left is reduced in volatility, so it is less easy to get a mixture which will burn and start the car. Once the engine has started the old petrol should keep it going easily enough and without unwanted effects on the engine. In practical terms, just remove the carburettor float-chamber, fill it with new petrol and replace it, crank the engine with the ignition switched off (to get the oil moving in the engine) and switch on. The engine should then start as normal, and there should be no problem from then on.

Two other points I should mention. First, if the petrol tank has stood for a long time (months) with little petrol in it, in a garage with fluctuating, day-

to-night cycling temperatures, 'breathing' will have occurred and air (with moisture in it) will have entered the tank, resulting in water depositing there (having been absorbed by the petrol). It collects at the bottom of the tank, and can be got rid of via the drain plug. (Water which is allowed to accumulate in the tank will result in rusting: so it is prudent to keep the tank full of petrol, giving less opportunity for 'breathing'.)

Secondly, it is prudent when stopping the engine, knowing that it won't then be needed for a long time, to stop the supply of petrol (close the tap, or stop the pump) and let the engine run until it stops on account of the system (the carburettor especially) becoming dry. This will minimise the chance of deposits from evaporated petrol being left inside the system.

There are additives for petrol ('carb & choke cleaner' and 'petrol fuel stabiliser') now on sale (Penrite having one on offer) to 'prevent loss of engine performance due to old and stale fuel', but I have no first-hand knowledge of these.

Peter Kendrick

Reproduced with kind permission from Meshing Point, Scottish A7 club

RH Insurance

Roland Alcock recently attended a zoom meeting the Devon Austin seven Club, to hear Emma Airey of RH Insurance give a talk and take questions.

RH has been transferring from ERS to its parent company, A-Plan. Policies and cover would remain the same, as would the renewal date(s) and insurer, which remains ERS.

Clients are now being looked after by A-Plan's dedicated RH specialist motor insurance team, who are based at Birch Court in Worcester. The team fully appreciate the value of understanding each client's individual needs, and can be accessed via the same contact details.

A classic car, for insurance purposes, is generally regarded as a vehicle over 20 years of age which covers less than 5,000 miles per annum and is used for social, domestic and pleasure purposes only. In all cases, the owner must have access to another, everyday, vehicle. Motorcycles are generally regarded as classics for insurance purposes when they reach 15 years of age. Again, associated qualifying criteria will apply and each request for cover is considered on a case by case basis.

RH's key benefits:

Cherished salvage retention is offered with nil deduction from settlement value. The majority of RH's competitors offer 'buyback' which can have a significant impact on the final settlement figure.

Add up to 5 named drivers over the age of 25, on a comprehensive basis, at no additional cost. (Subject to underwriting criteria).

We are able to offer limited mileage bands which are typically 1,000, 3,000 or 5,000 miles per annum. Unlimited mileage may be considered for vehicles aged 40+.

Most modifications are usually within the Insurer's appetite - apart from nitrous oxide!

Basic insurance cover (accidental damage, fire and theft) can be a cost effective way to keep your restoration projects covered whilst they're off the road - providing they're kept garaged. The vehicle would be covered under the terms of the policy whilst in storage, transit, or on static display at an event.

Austin 7 agreed valuations - NEWS!

We have recently increased the self-agreed value limit for our Austin-owning clients from £8,000 to £20,000 per vehicle. Owners of Austins valued up to £20,000 are now able to complete one of our Agree Value forms and send to us along with six photos of the vehicle (clearly showing the front, rear, left side, right side, interior and engine bay). A fee of £15 per vehicle will be charged by the RH team for this service.

For Austins valued in excess of £20,000 we will require a valuation from either a recognised vehicle club or independent specialist.

Market Place, For Sale

1927 Austin 7 Top Hat Saloon

In excellent condition, much work done on engine, brakes, transmission, suspension and trim. Manx registered and taxed. Contact jparr@manx.net

Available Club Regalia

Windscreen Stickers Two are free to paid-up members, if collected at monthly meeting, any more are £2 each

Sew on Embroidered badge £5.00 (Previously £10)

Brass Car Badge £14.00

Badges available at most monthly meetings. There are limited stocks.



HA7C Committee contact details

Role	Name	Telephone	Mobile	E-mail
Chairman	Michael Ward	01600 890902	07939 539926	chairman@ha7c.co.uk
Secretary	Bob Garrett	01497 831310	07900 496073	secretary@ha7c.co.uk
Treasurer	Julia James	01568 797959	07748 613110	treasurer@ha7c.co.uk
Membership	Julia James	01568 797959	07748 613110	membership@ha7c.co.uk
Events Coordinator	Pat Caine Jan Haywood		07966 387815	events@ha7c.co.uk
Technical Advisor	Eddie Loader	01432 356841	07817 361921	technical@ha7c.co.uk
Editor	Frank Sibly	01531 640406	07971 820721	editor@ha7c.co.uk
Webmaster	Roly Alcock	01905 371061	07730 557952	webmaster@ha7c.co.uk
Committee Member	Ron Sadler		07775 753412	com_mem1@ha7c.co.uk

HA7C website

www.ha7c.co.uk

Herefordshire Austin Sevens Forum <https://www.facebook.com/groups/357904524672062>

Some other useful resources on the Internet

Austin Seven Friends

<http://www.austinsevenfriends.co.uk/>

Austin Seven Clubs Association

<https://www.facebook.com/thea7ca/>

The Federation of British Historical Vehicle Clubs <http://www.fbhvc.co.uk/>

Austin Seven Group on FB

<https://www.facebook.com/groups/8069487412>

Cornwall Austin Seven Club

<http://www.austin7.org/>

Bristol Austin Seven Club

<http://www.ba7c.org/>

Dorset Austin Seven Club

<http://www.da7c.co.uk/>

South Wales Austin Seven Club

<http://southwalesaustinsevenclub.com/>

Red Cross Directory of Parts, Products and Services <http://oldcarservices.co.uk/>

Please note that the views expressed in this newsletter are those of the writers and not necessarily those of the Editor or the Hereford Austin Seven Club. Whilst every effort is made to ensure the accuracy of technical advice and information, the Club and its officers accept no liability for loss, damage or injury from persons acting upon the advice or information given in this publication.

Peking to Paris 2011

CHAPTER TWO

INTO CHINA

4pm British time- lights went out on the plane as we were forced to try and adjust to different time zoning. I watched part of "Alice in Wonderland"- awful, and all of "The Way Back", an allegedly true story of several escapees from a Siberian concentration camp making their way south to India in the early 40's, crossing the Gobi en route. Their track would have crossed ours. Also watched "Black Swan"- it was a good thing you could elect for subtitles as the sound was awful, drowned by the whooshing of the air conditioning, and the modern tendency of actors to mumble to the backing of loud music. We were on Cathay Pacific- usually excellent service, but this time the food was inedible, and the cabin crew seemed manic, rushing everywhere and knocking you as they passed. Quite a few bumpy stretches as well.

We changed planes at Hong Kong, and made the last leg to Peking arriving noon Sunday, being met by our compulsory guide, 26 year old (looked 15) smiling Susanna (real name Huo Hong- given name is the "Hong"). Same height as Carmen, lovely coffee coloured skin, long silky black hair, and so animated and bouncy. She took us to the car park where we met our driver, Mr Gu- the two of them come from Chengdu, and we understood that he did this job part-time as he owned a couple of tourist coaches. We drove two hours to Tientsin, the port where we hoped to find our cars amongst the tens of thousand of containers, and to begin the extraction process, which we knew would be a bore and time consuming.

Tientsin seemed much much bigger than it was in 2007, ten million inhabitants now, and the traffic had increased enormously. Huge skyscraper blocks everywhere..if China has a one child policy where do all the "new" people come from? No-one seemed to know, or have any sensible suggestion. Motorway all the way, but still goat herds being led alongside the road, no-one wearing a crash helmet on scooters and motor bikes (sometimes a whole family on one scooter!), seriously overloaded vehicles, wooden shacks. As when we came last time, we saw lots of tree planting- it seems they lop big branches off poplar trees and just stick them in the ground as huge cuttings some twelve feet tall, and it seems to work. I used to take lots of poplar cuttings when we had a big house in Sussex, and they do take very easily, but I never went above cutting a branch a couple of feet long. China is going to be covered in poplars- not the prettiest tree, but better than nothing.

We asked Susanna for a bit more detail about the one child per family policy. It seems that if both mother and father are single children, then they can have two children, not one. If you exceed your quota, then you are fined. State benefits of any kind, such as

unemployment benefit, were very difficult to get, so there was a huge discouragement to be lazy, as you would simply starve!

We went for our first meal- fried rice, spicy pork, noodles (I am not very keen on these slippery things- but in the Peking area they are more common than rice), and some rather tasteless green stuff. Susanna told us more about herself- she is a Christian, and met her fiancée at some sort of non-denominational chapel. His name is William, and he hails from Virginia, but works in Shanghai. His Chinese is so perfect that on the telephone a Chinese would not know he/she is speaking to a foreigner. They will marry at the end of the year. She had tried to get a visa for the USA but had been refused- apparently it's very difficult for young Chinese, as the US quite reasonably think they will try to stay.

Monday 23rd May- first call was for our medical. Last time, this consisted of eyesight and hearing tests. The eyesight test was to get you to say which way up an "E" shaped symbol was, and the hearing test consisted of a jew's harp being twanged near your ear, and having to say when you heard it! This time just an eye sight test, which I easily passed with my new long range glasses (bought for the occasion and not used since), and over and done in a few minutes. A time waster really, but with the Chinese it seems that no-one needs to be out of work because a job will always be found for you, even if it is only ticking a box on a form to say you have made the movements...that must be why benefits are so hard to get, as it must be pretty well impossible not to be able to get work. This exam was totally unnecessary, but it gave a job to the girl who did it. How much less costly, time wasting and aggravating travelling in China in your own car would be, if all this processing were to be scrapped.

Then we were driven another thirty miles to the container port. Very dusty everywhere, very flat, some traffic jams, one cyclist, possibly dead, lying bloody in the road after a collision, huge skyscraper blocks of flats everywhere. A real sense of vitality, but would I want to live on the top floor of one of those blocks? No way, they looked pretty jerry-built.

First call was at customs where we had to sign a declaration that the cars would not be used in any fashion that would assist Taiwan!! Did they think we would mount a couple of guns and start an invasion?

9.30am we arrived at a second building, with hordes of other people milling about, but we seemed to get slightly preferential treatment. So far so good. With all the paperwork, we certainly needed Susanna, as no-one spoke any English, but why did we need all the paperwork? A girl appeared, and seemed to be helping Susanna, then two men joined in. Susanna said this process only happened two or three times a year (I was not surprised, it was not exactly encouraging to huge numbers) and the rules were always changing, so we had to be patient! She said it was because of all the car contents that everything was taking so long- but what on earth was problematic about our contents- spares, camping gear, food? We had, after all, provided a list of the contents some months previously.

10.30 everyone "official" had disappeared. We were hot and thirsty, lots of people still milling about and one girl had been shouting for a long time into her mobile- what was she going on about? Her voice rose above those of the other hundred or so people in the room. She was very agitated. I wondered if the Chinese asked themselves how Europeans told each other apart- all the Chinese men looked pretty much the same to me, though the females did look different- that could have been because all the men had the same black hair style, whereas the women had long/short/in-between hair, and also seemed to vary in height more than the men. Hardly any grey hair, and very few bald men.

The hanging about got really annoying, but this was China, and we had to go along with Susanna and her request for patience. The problem was that we had to drive the cars back some thirty miles to the hotel, and I did not want to be caught in "rush hour", or even worse- the dark. I needed to check out Kotka's axle, check water oil and petrol, and briefly check contents. I was also worried about whether the cars would start after four weeks on the high seas, and another four stuck in the port.

11.15- we left building two to go to building three, where we had spent many frustrating hours in 2007, being so delayed that we had to spend an extra night at the port- please not this time! Inside is a huge atrium, with a cafe of sorts, and palm trees and other tropical plants. Susanna said that lunch was between 11.30 and 2pm (what!!!!) for these customs people, then they stop work at 4.30. Everyone wanted to be a customs officer as it was an easy life! Sure enough, at 11.30 everyone downed tools, dancing sessions started, and badminton games were set up in corridors. Others played a sort of foot badminton, where you can use anything but your hands and arms to get the large shuttlecock over the net.

The staff seemed to be in no rush at all, with the attitude of "push me and you will wait for ever". I suppose that the work is stretched out to fill the short day they have, so if a piece of paper is shoved hither and thither for ages, it matters not. They can spend an age deciding where to put the stamp, and then delay again after deciding to clean the stamp or whatever. Full employment must have a price. Time is irrelevant. We certainly felt irrelevant, in spite of the huge fee we had paid.

11.45 we were told that two signatures were needed (why two?), and one fellow had said he would not attend to it before he had taken his lunch, and had disappeared. So we had to wait 2½ hours, when he could have taken a few seconds to do his bit. I moaned to Susanna rather, and whether that had any effect I know not, but somehow we obtained the stamp by 12, and then went to the canteen for lunch. Susanna said she now had to pay for the relevant papers, and the pay office was not open till 1pm. Fine- we could at least eat, and a perfectly good meal cost just five pounds for all of us, Susanna and Mr Gu, the driver of her car, included.

I wondered why a lot of this paperwork could not have been done before we arrived in China, but Susanna said they needed to see us, see our passports etc. However, all our papers were copied to the China agent as long ago as February..oh, be patient!

After a quick lunch, back to Building One- the staff were still playing kick badminton, and it was quite fun to watch.

1.45pm the girl helper was back having made a payment somewhere else and now needed to make a payment here. She disappeared.

2.15 . Hot sticky, longing for a wash. The girl was back! But now she had to go to another building for a receipt. Hell.

2.40 We had everything paper-wise, glory be, and were told we could now collect the cars.

Oh dear- the container could not be found! There were tens of thousands of the things standing in huge piles everywhere. Then it turned up, suspended under a huge mobile crane, and was dropped down in front of us, by which time it was 3pm. I was thinking that now everything in the cars had to be inspected, so more delay, but Susanna said that was not necessary. Good. Lots of oil under Kotka in the container, but absolutely no sign of any crack in the differential, so I could only hope for the best and do nothing so far as the axle was concerned other than check oil levels and refill slightly. I checked everything else out in the shade of the customs shed, and the cars started right away.

We set off for the hotel, in heavy traffic. Cars, lorries and coaches coming at us from every angle, and at every speed. Mayhem, and absolutely horrid. Wasn't like this in 2007, that's for sure. Bloody dangerous. Nose to tail for an hour or so, and I was worried about the clutch and overheating, but actually the cars did not get bothered at all. One problem we never had on the trip was any form of over-heating, even in really bad traffic conditions.

We arrived at a motorway kiosk, and meet a problem- we were not allowed to travel on a motorway. Why? Wrong sort of cars or something. A somewhat heated argument followed, the officer in charge saying "velly solly" a lot, as a crowd gathered. The supervisor was called, who decided to let us proceed after all, thank goodness, for otherwise we would have had to go back down a dual carriageway, try to find an exit, then crawl through awful traffic and lousy roads. We ended up shaking hands and departing with smiles and waves. As soon as we set off it became clear why such roads are dangerous- we were overtaken and undertaken! Traffic piled up as cars slowed down during overtaking to click away with cameras or mobile phones. Chinese drivers are velly dangerous.

Then Carmen called on the walkie talkie we had been given by Susanne to say "Myrtle is suffering". We swopped cars and sure enough, Myrtle was stuttering somewhat. Very

difficult to concentrate on deciding what might have been wrong, what with the awful noise of traffic, and cars coming at you from all directions, but when we made it to the hotel, my suspicions were confirmed- the points had closed up, and the plugs were very sooty.

I reset the points, cleaned the plugs, then weakened the petrol mixture. Checked everything else I could think of. Lovely meal with Susanna and Mr Gu in our hotel, for a mere thirteen pounds for everyone.

Just 40 miles today- only 7,000 plus to go. Who's worried?

Tuesday 24th May.

We arrived at the registration office, same place as in 2007, by 9am, and first call was our driving "lesson". A charming policeman told us on which side of the road we should drive, as if we did not already know, and that we should stop at red lights. He then told us that we were obviously experienced drivers, and proceeded to talk about the sights of Tientsin! Another box ticked.

11am. As usual, hot, sticky and bored stiff. Waited with a hundred or so other people to "register" their cars and get number plates. Some of the cars were very expensive Bentleys, Mercedes and BMW's. Some people were obviously doing very, very well for themselves. No-one was a rush, but everyone, bar me, seemed quite patient. Soon it would be 11.30am and lunch would kick in for 2½ hours! Sat in the waiting room watching some road safety cartoons and some pretty graphic films of real accidents...which, judging by the way people drive, have little effect. Drank loads of water, but never felt less than thirsty whilst tum began to expand alarmingly!

Well done Susanna- she had managed to get the chap dealing with us to finish his paperwork before going off for lunch, and then she gave us more good news- no MOT this time! Well, last time it was a joke- their exhaust emission machine did not work, and all else they did was test the lights. When I was asked why the car's lights seemed to shine very high, I just said that was normal with old cars, and that we were not planning to drive at night anyway. We were waved through!

We went for lunch in a Moslem restaurant, just three pounds for three of us, and watched the cook making noodles. He started with a lump of dough, separated into two then four then eight, and so on, stretching it all the while. Carmen, sadly, did not have her camera. Sitting at the same long table as us was a family including two really revolting children, aged 9/10 or so, a boy and a girl. Both hugely fat, both ate like pigs, shovelling food into their mouths as if the food was to be snatched from them any moment. They waddled off like Tweedledum and Tweedledee, clutching the hands of their parents. The only fat Chinese we saw!

Back to the registration office to find that the combination number I had attached to our combination lock had come off, so I could not undo the security cord which I had fixed to Myrtle's spare wheel. The idea was that this could be threaded through both steering wheels if we parked side by side, and end to front. Susanna made a call to a local locksmith, who came and had it undone in a few seconds, then reset it at 5093. It cost ten pounds, which was an enormous amount, but we needed the lock if we ever found ourselves parking anywhere a bit "dodgy"!

2pm. Hotter and stickier, and no end in sight as yet. I was thinking that if we could get away soon, we might miss some of the "rush hour" traffic in Peking.

2.30pm- all done and we were off at last. Horrid motorway drive to Peking being overtaken and undertaken, with people hovering about in dangerous fashion trying to take photos with one hand and steer their cars with the other. Discovered that Kotka would go better changing the ignition setting, though she did not seem entirely happy, and missed occasionally.

We arrived at our hotel and a model was having a photo shoot in the car park. We were asked whether she could drape herself on our cars for a few pics, and Susanna told us she might not be a model- a lot of girls have photo portfolios done, though I could not quite understand why. Susanna said they "hand them out" or "put them on their wall". The girl struck several poses by the cars, and as far as I am concerned, she was a model.

Mr Gu disappeared but Susanna came for a meal with us, then we walked around the Forbidden City for some hours, covering five miles. I ended up with a huge blister on my left foot.

85 miles today, total 125

Wednesday 25th May

I worked on the cars all morning discovering that some of the grease nipples were blocked, or the grease gun would not fit. Broke the new grease gun. Got cross and tried to make myself feel better by swearing a bit. Took ages trying to get grease to go where it should, (got it easily pretty well everywhere else!) checking oil levels, checking plugs, making sure all bolts/nuts tight.

After lunch, which left me feeling a bit "iffy", Susanna joined us for our trip to the Peking Children's Clinic, founded by the Rockefeller Foundation in 1921, to which we were driven by the local Smile Train representative, Elvis Chen, a charming fellow who had been with Smile Train only three months. Late 20's I suppose, speaking very good English. We met Dr Zhou, the surgeon, who then introduced us to some of the kids and their parents.

It was quite clear that the Smile Train claim "costs as little as one hundred and fifty pounds and takes only forty-five minutes", was a huge over-simplification, but then if you are trying to attract people's attention, you cannot go into detail! There are cleft lips, cleft palates and cleft gums. Some kids suffer from the lot, whilst others have just one or two of the problems, it being girls who mainly have just a cleft palate. We were told that cleft lips are done first, then the palate. These operations were carried out, preferably, at just a few

months old, and the earlier it was done the better, though we were to learn in Mongolia that because of the distances involved to get kids to hospital, and the difficulties in promoting the programme, some children were being treated for the first time as late teenagers. The children have to come back to hospital aged about nine to have any cleft gum work dealt with, possibly involving bone graft (bone taken from hip), then orthodontic work from age eighteen onwards. I presume that the gum work cannot be done earlier as the gum needs a chance to grow first.

The hospital, of which the clinic formed part, was enormous. 1,800 beds and 4,000 staff, All the nurses wore head covering, shoe covering and overalls. The doctors all wore white clothes. No clutter anywhere, and very clean- this was what we found at all the clinics we visited, with a definite professionalism sadly lacking for example, at Hereford Hospital, for all the money poured into it. There, the doctors sometimes look indistinguishable from down and outs.

The first patient we saw was a one year old boy who had had his cleft lip repaired, and was now returning to have the cleft palate seen to. He was accompanied by his parents, brother and granny. Elvis had given us gifts from Smile Train to give to them. Then we saw a rather "backward" 19 year old girl who was in for further work on a cleft palate, done some years previously. Then finally we saw a four month old girl, Li Siyu, adorable, in for both cleft lip and palate work. It was all very moving, and some of the parents were in tears.

Dr Zhou told us that his clinic had now done sixty-six operations with Smile Train, (in about a year since their relationship began), to whom a full dossier would be sent on each patient, with before and after photographs. He said Smile Train were not charged full costs on operations carried out on poor children.

It was quite clear that we were raising money for a very worthwhile cause.

Thursday 26th May

We left the hotel at 7am to make for Walanbuchi some 230 miles away. It had originally been proposed that we would visit some caves at Datong en route, full of Buddhist carvings, and a "hanging" monastery suspended from a cliff face- but it would have been too much of a rush, so I decided we really had to cancel that. A shame, but there was no point in trying to do too much when we needed to cross into Mongolia at the weekend.

We had one long, long climb along a twisty road through steep hills, passing bits of the Great Wall. Myrtle was not too happy about the effort required, whilst Kotka seemed happy enough. The usual dreadful Chinese driving of course, which put our nerves on edge somewhat, and at one stage I was being overtaken and undertaken -in the emergency lane- by two large trucks at once, being sucked from side to side by the slip stream. Even undertaken by a police car.

But eventually we also began to overtake in the emergency lane, as it was safer than trying to pass crawling trucks in the proper lanes. One toll booth had a ten mile tail back of hundreds of lorries, but we crawled up the inside, and reached the booths after an hour or so.

That evening, I checked the cars, and noticed that the distributors seemed very loose. We had had this trouble in 2007, and ended up being towed. Not again I hoped. I rang Clive who did not seem too worried about it. Both the cars have the same problem, so maybe nothing wrong, but I was a bit concerned. One of Kotka's plugs was very loose, which surprised me as it had not affected her running.

The hotel was fine, and we had a suite, but the usual stained carpets, loose plugs, kettle would not turn off, tiles missing in bathroom, shower blocked, shower tray not properly plumbed in so it leaked onto bathroom floor where there was another drain but unfortunately the floor sloped uphill to it, so we eventually had a bit of a lake around the lavatory to negotiate and clear up. Lavatory seat loose, no hot water at the basin.

233 miles today, total 358

Friday 27th May

A day of gentle climbing to the border and the Gobi. Grassland mixed with sandy areas, gravelly areas, and settlements in the middle of nowhere- what do they do for water? Quite a few wind farms. We missed lunch as Susanna wanted to get to Erenhot early to give her time to try and finalise some of the paperwork for our border crossing the next day.

Kotka started to leak a lot of oil, but filled up and decided I could do nothing before that evening. Then Carmen radioed that she could smell petrol, so we all stopped for a check. How lucky- the banjo joint on Myrtle's SU carburettor was about to fall off, and had it done so, that would have been that, had it gone missing in the ditch. We set off again and then I too smelt petrol- was it a leak, the cans we had just filled some of which were in my passenger footwell, or another car? Thought about pressing on and then realised that would be silly- I could be in a potential bomb. Pulled in again, and as I did, Carmen radioed that liquid was coming off the back of Kotka, then the engine died. I tried to restart Kotka, but the engine was absolutely dead. Oh hell. Again, what luck we had- the banjo joint to Kotka's carb had come right off, and was just about to drop off its pipework, hanging there by a fraction. Petrol had been pouring out over the bottom of the engine, (that's what Carmen had seen just as I was pulling up) so engine obviously

would not go as no fuel. Again, nothing lost, so put it all back together and in case of that joint working loose again, I fixed a cable tie round it, so that at least the bits would stay together. What a coincidence that both cars developed the same fault at the same time! Checked the block/sump bolts, and these had worked loose so tightened them. Kotka's oil incontinence made itself quite clear, for as far as we could see back up the road there were blotches of oil every twenty feet or so.

We eventually set off again, and as we approached Erenhot on the border, began to pass the bronze dinosaurs that we had seen last time, but now very many more of them, and bronze trees of same period. This is an area well know for having many, many fossils.

That evening, did more checking, including Kotka's engine bolts, exhaust manifolds, all carb nuts, oil, plugs, fussed over the distributors to no avail, greased where I could. Oil leaks are a damn nuisance- everything gets mucky, and so doing checks was a messy business. We had brought lots of baby wipes with us, and they were certainly very, very useful! I only had to put 1/4 pint in Kotka, which was amazing considering the oil all over the offside of the engine, and what we had seen on the road. Myrtle being very continent however, and needed nothing.

208 miles today, total 566

Saturday 28th May

Last time we were at Erenhot it took all day to get customs' clearance, so we were expecting some delay, and were not to be disappointed!

12.15pm- still at the hotel waiting for Susanna to tell us that all was OK and that we could proceed to the border point. I told Susanna that I had asked Tracy at Navo Tour to be absolutely sure that there would be no problem with a weekend crossing, and that she had assured me all would be well- but if not, her company would pay for any extra day's accommodation! Susanna said that we might not be able to cross today, as an official at the state capital was meant to sign some paperwork yesterday but had not turned up to work, so it had to be done today, and the paperwork then had to be forwarded to Erenhot We might not get the paperwork till Monday! I blew a bit of a fuse. Susanna and Carmen went off for lunch and during that lunch Susanna received a call to say the paperwork had now been signed, and was in Erenhot, but now had to be taken by Navo Tour's local rep to various departments in different buildings in Erenhot to get more stamps!

Carmen told me that on the pavement outside their lunch restaurant, a lamb had just been slaughtered as they arrived. The blood had been collected in a bowl and the lamb was being skinned. They were cutting out the intestines. On the other side of the road was a small truck in which several more poor little lambs were awaiting their turn, in full view.

At 4.30pm, the chap arrived with the paperwork, and after it being presented to the border post, it was confirmed we could leave. I really cannot understand any system that makes so much palaver over letting you leave a country, especially when you have been under the eye of an official guide all the time! It was sad to say goodbye to Susanna and Mr Gu, who did their very best under a really complicated system. There can be no good reason for most of the requirements- medical, driving lesson, number plates (never put on the cars), registration of the cars etc etc. and considering the huge cost, one could reasonably think that one's path would be smoothed, rather than being made to feel like criminals or undesirables.

Kip Waistell