

Humps and Pipes



Issue No.44

October - December 2004

Humps and Pipes

The quarterly newsletter of the Ronart Drivers' Club

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Cover Page Photo – Graham Hallett's completed V12 shortly after its SVA in July.

FROM THE EDITOR

I feel a bit embarrassed about choosing a photo of my own car for the front cover. And this issue has the final account of my own SVA etc., so I do apologise for this. Still, I suppose it has got to appear sometime, so maybe now is the time to publish and be damned.

You have been hearing a lot about successful SVA's recently, what with mine and John Ellis's. John will be completing his account shortly, rather more humorously than mine, which is in this issue.

You may be wondering about our wager. Well, of course I won in terms of success in the SVA, but unfortunately I lost the side-bet over which of us would break down on the road first. So we are quits.

The honours though must go to John for bravely turning up at the Christmas Lunch in his (the only other [W152] Ronartier intrepid enough was Barrie Cannon). I suppose I could have put Jemima in the boot in order to trump him.

John's car looked very fine, though many details, such as painting, to be finished off over the winter season, but that's the way to do it.

I felt that the Christmas Lunch was a success despite the lowest attendance for several years. We waited for several hours for the Trodds because sadly Freddie broke down, but the cold turkey was alright in the end.

We are wondering whether maybe we will make our annual lunch rather later next time - perhaps the dark period of January/February when members' calendars are less crowded? That would stop John Ellis coming in his W152.

Henry & Jane Weitzmann have kindly proposed a firm date for a rerun of their

Summer Open Day for 2005. It will be on Sunday 31st July at about midday. Address details will be notified nearer the date, but they are close to the M25 on the North side of London, so not a terrible drive for most of us on a midsummers day.

I do hope this will be well-supported this year because their hospitality included a superb buffet lunch, and the Weitzmann stable of interesting cars is really worth seeing. I believe that this year Henry will be allowing short test drives around the sunbathers on the lawn, and there is an (all-weather) indoor swimming pool, so bring your kit.

We have no firm news yet about mobile events and outings yet, for the coming season, but we are hoping that one or more volunteers may suggest and run an event. In 2004 we had two long tours (beyond a full week), and this is not our usual practice. So really this year it is perhaps appropriate to have one or two long week-ends, which might be manageable for a more varied band of Ronartiers.

There seems to be a lot of interest in doing something alongside the Goodwood Festival of Speed, and this may be done in conjunction with Vanwall Cars. I plan to lead a couple of cars to the Bromley Pageant.

Wishing you all a very Happy New Year.



John Ellis's car in SVA trim. The new red paintwork is a trifle dull, or is it just my eye?

"WOGER THE WILD WONART WONDER BOY"

I'm weally glad Chwistmas is over Woger!!

It started with me and my Wachel starting off to go to the Wonart Chwistmas dinner, Wachel said at the start that she did not want to go in the Wonart. But you had to insist Woger, didn't you. Well how was I to know that the accel-ewator cable would come away from the twiple carbs. The man from the AA was a nice man, a very very nice man. He managed to get me going with a pair of pliers and an old coat hanger, but by the time we set off it was far to late to have lunch.

The next morning I was awoken by the doorbell winging at Tam, I went down and there was the postman with a Chwistmas card that did not have a stamp on it. The postman then asked me for £1.21 for unpaid postage. When I opened it, it was from one of my fellow Wonartiers who had forgotten to stamp it. You wait till I see him on his weturn from his antipodean twip.

I then managed to overcook and ruin the turkey, not a gweat move when Wachel mother was coming over for dinner. She was not happy when Wachel told her there was no twurkey legs or dwipping for her toast in the morning. She just tucked into the shewy, muttewing words like stupid and useless, and what she was going to do without her parson's nose.

Not a lot of diffewence between her nose and the burnt one on the twurkey that I threw in the bin on Chwistmas morning, I reckon...

Wrote my list to Santa, that went well...

Dear Santa

I would like for my workshop...

- 1, Snap-on open-ended spanners*
- 2, New Chamois as the old one smells like my socks*
- 3, Jaguar umbwella small enough to put inside the cockpit*
- 4, Black leather dwiving gloves*
- 5, inside car cover to protect the paintwork when I am not using my Wonderful Wonart*

What did I get?

Thwee pairs of socks, a bwown belt that is too small, some glass shelves for the bathwoom and a bottle of aftershave from Wachel's mum that smells like she made it herself from old leftover vegetables.

So don't be ungwateful, be positive Woger!

It's the new year and that means it will not be long before the summer bwings long sunshine filled days and gweat times ahead out with my Wonart away fwom the twoubles, stw-ess and the nagging of Wachel's mum.....Bliss!

CLUB TOUR REPORTS

Southern Ireland 2004 – Days 3 & 4 - by Barrie Cannon (Not sure what happened to the other days, but you can piece the story together from other parts of this issue).

Friday July 30th

We left Lawlors Hotel, Dungarvon on the South Coast to make our way independently to Kinsale by evening. Michael and I agreed to travel with the Jordans at an easier pace, exploring the small coastal towns. We stopped outside Dungarvon at a high-point lay-by to take in a lovely panorama which the Jordans filmed on their camcorder. While taking still photos the camcorder was left on a wall and a German lady rushed over to tell us just as we were leaving.

We then went to the small seaside town of Ardmore. It was now sunny and the forecast was good – a big relief after the dull day before. I was also relieved that, by moving my HT leads, I had stopped them dropping into the throttle-linkage which had jammed open twice yesterday as a result of this – no further recurrence.

As our two W152s drove along the Ardmore sea-wall we noticed David Lyons' car already parked there. The locals were gathering around when suddenly the rest of the group also turned up and there were Ronarts everywhere – to the delight of the locals, who had never seen one before but now encountered seven at once.

We, the Jordans and the Lyons then drove to the hill behind town to investigate a strange tower – a five-storey refuge tower (the best example in Ireland apparently), part of the 12th century ruins of a small monastery. St Dedan, who supposedly brought Christianity to Ireland before St Patrick, was originally buried here and this small graveyard looked toward the sea – a lovely setting.

Our three cars then headed for Youghal (pronounced Yule) and after parking near the quay noticed other Ronarts nearby. We traced their owners to a quayside pub where another lavish lunch ensued. After this the Lyons, Jordans stayed with us and we enjoyed the minor coastal roads to Kinsale, avoiding going up to Cork. We stopped at one more place, a little fishing quay with only a few houses where we met the Logues in their MG Magnette and got talking to a local big-wig. Although we were split into two hotels in Kinsale, due to Bank Holiday demand, the whole group ate at ours, The Blue Haven, for a very good meal.

Saturday July 31st

We stayed 2 nights at Kinsale so we decided on a trip up the coast to Clonakilty. It was another lovely hot sunny day, but also the first of the bad-road days. The coastal roads in the South are worse than they look – like driving over large corrugated iron with the odd lump or hole for good measure. I was teased for trying to avoid these and drive slowly whereas most of the others blithely drove at their usual frisky pace. On my return home I found one rear shock-absorber had broken.

Like yesterday, we, the Jordans and the Lyons hung together and at Clonakilty took the last three spaces in a car park behind the



CLUB TOUR REPORTS (Cont.)

High Street. On phoning the others we were surprised to find that we were here first, so we found a corner bar on the road into town and sat outside with the first drink. The others soon arrived. We flagged them down and directed them to a larger public car park behind the bar. Once again we all managed to end up together and had a very leisurely lunch and several rounds on the pavement. The ladies disappeared in groups to window-shop and I bought some postcards. When I got back to my car there were crowds around it. A local man said there was a classic car show the next day with other high-performance cars, and we should come back as guests. We could not unfortunately, as there was a long journey to Kenmare.

This was a lazy day – we did not go any further but returned to Kinsale on the same poor roads. Michael and I went to a small pub and sat on the pavement in the evening, missing the eating plans. On our return, the rest of the group had left 20 minutes earlier to eat at a restaurant called "The Spaniard" across the bay. This was a relief in a way as it gave us a break from the usual culinary onslaught. Michael had stomach-cramps (seat-belt too tight) and ate nothing that night and I had a very average Thai meal in town. We then had a long walk all around Kinsale and the waterfront. The Blue Haven was the most expensive hotel of the holiday but by no means the best.

The following day we met up a mile or so outside Kinsale at 09.00, at a long bridge over the inlet, for the long drive to Kenmare. Freddie Trodd had a puncture and asked me if he could use my spare wheel for a few days. My W152 has a side-mounted spare and so saved the day. He kindly offered to buy the tyre from me, as it was unused but, as I told him, "A friend in need is a pain in the arse!!"

Overview of Ireland 2004 - by Pippa Lyons, aged 15

When I first found out I was going to Ireland for my summer holiday, I figured we would just be eating potatoes, drinking Guinness and trying to catch little green leprecons! However I was mistaken, we were also going to drive around in a topless car in the rain!

Once on the ferry, each member was issued with a survival kit, including holy water, and a colouring page, I started to think we were visiting the end of the earth. Well we did go to the most south-westerly point, and there wasn't much there, although admittedly that was the whole charm of Ireland.

During the expedition I indulged in the finest of foods, including oysters, mussels and black and white pudding, which to everyone's surprise I quite enjoyed, however no-one would tell me what the black and white puddings were made of!

I am growing to like these holidays, mainly because of the company I am with, but also because driving holidays are a lot more interesting than your average beach holiday.

It was the first time I have visited Ireland, and it is the most beautiful place I have ever been to, and I would really like to go there again.



Don't press the Start Button!

CLUB TOUR REPORTS (Cont.)

Comments on the Irish Trip - by Barrie Cannon

Agreeable Surprises

1. The Weather – only 2 dull days and one rainy day; the rest all warm and sunny. I didn't need to bring the aqualung after all.
2. My Car – after 4 years of aggro and the crash in France it behaved perfectly(ish) and got me home in one piece.
3. The Irish People – everybody friendly, everywhere. With an accent like mine I expected to be knee-capped in Rosslare. They were so enthusiastic about the W152s, taking our pictures, and making us feel like celebrities – no envy or sour-grapes at all.
4. The Towns – how colourful and prosperous they looked, with all the small traditional independent shops still thriving (how long before the huge chains spoil it?)
5. Food – always good and generous – not the limited potato-based fare we were led to expect.
6. Petrol Prices – equivalent to 68p per litre – further proof of how we are ripped-off in England.

Worst Bits

1. The Roads – most were terrible. My car is now full of squeaks and rattles.



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2. The Cost - approaching double what I expected, with hotels and restaurants rather dear. Bed & Breakfast places were good value though.

Best Sights

1. The 12th century tower, monastic ruins and cliff-top graveyard at Ardmore.
2. The large impressive monastery ruins of the "Rock of Cashel".
3. The Healy Pass looking towards West Kerry – what a view!
4. The pub in Cashel where some rich entrepreneur had shipped and re-assembled a Welsh church ruin inside and created a multi-level disco pub – Gothic and amazing.
5. The constant crowds around our Ronarts.

Special Thanks

1. The whole group – for being such fun in spite of our different backgrounds and attitudes. Also, thanks for making my German pal Michael so welcome. He had a great time and said he had never done anything like it before. Mind you, he'll be skint for a year now.
2. The Trodds – especially Steve for such faultless organisation and the amusing "Survival Pack". Luckily I didn't need the Holy Water. Unluckily I didn't need the condom either. (Steve, it should have been 2 condoms because in Ireland they wear 2 at once, "To be sure, to be sure") The crayons and kids' picture kept Michael happy too.

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CLUB TOUR REPORT & Competition (Cont.)

2004 Report on 'Competition' Activities - by Tony Legon A.R.P.A. - in his absence at the Xmas Lunch in Cambridge.

Firstly let me start by thanking whoever may be delivering this speech on my behalf. I am sure he/she will do a grand job.



Intrepid ! - Peter & Wendy Jordan in the rain.

Secondly I am very sorry not to be with you, I have not missed a Christmas bash since I became a member and I believe there may have only been two others before I joined.

Well where am I? About the time this speech is delivered I will be boarding a plane on my travels to New Zealand. I have been invited by the Royal New Zealand Automobile Club to give them a talk and small exhibition all about Ronart Cars and the wonderful experience of driving them on the road and track. So I have taken this opportunity to take the whole family over with me.

So straight away a very big 'thank you' to Arthur Wolstenholme of Ronart/Vanwall cars for so graciously sponsoring the trip, the costs of having the car air-freighted to New Zealand are truly exorbitant. Knowing just how modest Arthur is about these things he'll probably deny it all but I want you to thank him.

Also a big 'thank you' to all the members of the club. I was amazed when our treasurer John Ellis suggested that the club paid for all my other expenses, so to everyone – 'thank you very much'. Don't badger him too much

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about this decision - I did have him over a barrel, so to speak, about certain pornographic images he has in his garage that the local constabulary might be interested in. It might be a good idea if you all pay your membership fees promptly this year as I'm sure the fees will have to rise next year to pay for this trip of mine.

So what has the club done this year in terms of trackdays etc? Well four jaunts come to mind: Prescott Hill climb, the visit to Shelsley Walsh, the Race to Ireland and our usual trip to the JEC meeting at Mallory.

I have never attended a hill climb event before, let alone driven one, and it was without hesitation that I accepted David Small's suggestion to go and have a go. Four cars went: mine, David's, David's son Rob in his VX220 and Freddie Trodd. It was a glorious trip down to the Cotswolds the afternoon before and would have been completely uneventful, other than for the usual complete brake failure that I experience from time to time, which occurred at the start of the trip, and also for David who had a car crash into his rear wing and bounce off his wheel. Roadside repairs to David's car soon sorted his wing out and my brakes returned after a few miles as they always seem to. That evening John Ellis, who was to accompany us the next day as our official photographer, joined us.



Jacques & Christiane Grandjean - chic !

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CLUB TOUR REPORT & Competition (Cont.)

I can only say what a super experience driving the hill was. Ronarts are not the best beasts for this sort of caper. They are very front heavy, very wide and easy to slide the back end out. However we showed most of the others on the hill just what Ronart boys can do and we only had one off, and it wasn't me either. At the end of the day, with one head gasket blown on Freddie's car, we headed home with no further trouble. A fuller description of the day will appear in the magazine in due course.

The club put on a fabulous show at Shelsley Walsh parked just up the hill from the Aston enclosure. I have to say that seeing the pro's drive up the hill made us realise just how timid we had been at Prescott but it was a really terrific weekend and once again thanks go to John and Vivien Ellis for such marvellous organisation. My brakes played up again; disappearing and returning as is their wont.

So to the race to Ireland. Graham Hallett and I had decided to travel down the day before so that we wouldn't have to get up at the break of dawn to travel down to Wales. So what was the race? The race was to see who could get their car fixed in time. Graham had just got his car on the road but was suffering with terrible fuel pump problems. The V12 engine is so complicated, he had replaced four fuel



The gent in white is Lord Robert Winston whom we just happened to meet at a remote café !

pumps in as many days and yet he wasn't sure he had fixed the problem yet. I on the other hand had started a week before to sort out my intermittent brakes. Having checked over all else I had come to the conclusion that the only part left that I hadn't changed was the master cylinder. Easy enough. So I set about removing the old one and obtaining a new one.

Quick call to Ronart Cars to ask them what part it was, as my car was a factory-built car, and so, armed with the information that it was a Series 3 XJ6, I ordered one from the ever-helpful John Gordon Spares firm. It duly arrived but it was clearly different. I then had to establish whether they had sent the incorrect part, or had I told them it was something which it wasn't. Unfortunately the latter was the case.

So what part did I have? Well, a call to Arthur still shed no light but I did send him a photograph of my old part. The clock was running and had been for a couple of days. Did I risk the old one on a long trip or did I keep on trying to identify the part? How do you identify a part when all the suppliers say, 'what vehicle did it come from?!' Eventually I located a firm that could tell me what vehicle used what part, when all I could give them was a casting number that I could see, forged onto the side of the cylinder. At this time, as if by magic, Arthur called back. The answer, it transpired, was that the unit came from an FX4. To those of you not acquainted with this term, this means a Black London Taxi. In Arthur's defence it does look very similar but how on earth did it come to be fitted in my car, and which other Ronarts have one as well? So I located one if these, duly fitted it and was ready to leave the next day.

The morning came to leave and all I could smell was petrol! The fuel tank had split on

CLUB TOUR REPORT & Competition (Cont.)

one of the seams. So off came the back of the car. I've got this job down to less than 19 minutes now! Out with the fuel tank, along to the alloy welders and got it repaired and fitted back into the car. Meanwhile Graham had blown a couple more pumps.



History does not reveal what was going on here, but there does seem to be a certain amount of consternation. Perhaps passenger Graham Hallett has lost Tony Legon's keys?

We decided to call this race off and got up very early the next day and set off with all the other Surrey contingent to Pembroke Dock.

The last meeting of the year, our usual bash around Mallory, proved to be as eventful as ever. I had just got my car back from having an engine and gearbox conversion and was looking forward to trying out the new power. Freddie Trodd was there, as was David Small and his son Rob who again joined us in his VX220. Also Freddie's son Sean, Colin Neal and John Ellis met up with us. On the day Peter Jordan and a friend of his also came along to cheer us on. The weather was exceptionally good and a great day was had by all.

To my consternation, although my new car set-up was the quickest it had ever been, and even with Freddie's gearbox playing up, I still

found that stopping him from coming past me was proving to be very difficult. Then I had a brainwave; I thought that if I chucked lumps of metal out of the car it might just distract him a bit. But then I thought this might be a little dangerous and anyway I don't keep loose bits of metal in the car.

However the track gods intervened and only a few laps later and a low-flying exhaust bracket appeared at windscreen height in front of Freddie's car so he decided to head butt it with spectacular effects. Somehow he managed to finish his lap and pull into the pits. A quick trip to the medical centre to re-position his nose and upper set of teeth. The medical boys did their best, not a good job I know but they were cheap and they did help to clean up all the blood!

The excitement of the day hadn't finished yet either as it then transpired that Rob's VX220 had started to clatter and now sounded like a diesel. That's what happens when you take on Ronarts.

So it has been an eventful year one way and another and for me this wonderful trip to finish. I do hope you all are having a good dinner and have enjoyed this episode of Jackanory.

On that last note Happy Christmas to you all.

With the high rate of attacks on women in secluded car parks, especially during evening hours, Epsom Council has established a "Women Only" car park in the town centre. Even the car park attendants



are exclusively female, so that a comfortable environment is created for patrons.

TECHNICAL TOPICS

The XK Engine (Continued)

Extracted from Jaguar World website – www.jagweb.com/jagworld

Former power units engineer at Jaguar, Roger Bywater of *AJ6 Engineering* analyses this famous power unit and takes us through its design evolution from 1948 to 1986.

The XK Jaguar engine, created by some of the best engineers in the business at the time, certainly ranks amongst the classic engine designs of all time. Always a heavy engine, it nevertheless was able to achieve remarkable competition successes in the 1950s and as a volume production engine it was pretty much in a class of its own for the next decade or so until other manufacturers began to catch up.

Of course all good things have to come to an end and the end of the XK is, sadly, like that of too many human sports personalities. It soldiered on until it was way past its best, its greatness perhaps tarnished by its final years.

More Mechanical Changes.

Coming back to earth with production changes, one, which served no purpose at all, was that from two to four bolt fixing for attachment of the vernier sprockets to the camshaft flanges. Two bolts had given no trouble whatsoever so why the change? Believe it or not, it was the result of a cost cutting exercise that went wrong. The



serrated vernier plate is a cumbersome thing to produce and the plan was to replace it with a simple pressing rather like a pastry cutter. This would not work with two bolts so four were tried before the futility of the scheme became obvious, but the four bolt fixing remained from that day on, thought by some for no better reason than to protect the reputation of the perpetrator.

Actually there is something of an anomaly regarding the vernier sprockets. They permitted very precise adjustment of cam timing, yet the accuracy of phase angles between individual cams along the shafts was not always as good as it should have been and as far as the 5/16" lift cams were concerned might best be described as "vague". The 3/8" lift cams were much better in this respect.

The 87 mm bore 3.8 litre was the maximum practical stretch within the original cylinder block and was a good example of a speculative modification proven under racing pressure feeding back into production. The 2.4 (83 x 76.5mm) was really rather a disappointment in terms of specific performance because the ports and valves were just too big for that size of engine. In any event the twin cam / hemispherical combustion chamber layout never really worked so well with short stroke engines partly because of the piston shape needed to achieve a reasonable compression ratio. The later 240 engine was encumbered with the straight port head and only retention of the mild 5/16" lift cam enabled it to produce acceptable mid-range torque. At least the weight of these small capacity engines, including the later 2.8 litre, was reduced by use of a shortened cylinder block accompanied by shorter conrods.

Prior to the 4.2 all XK cylinder blocks were

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cast with space for coolant to circulate all the way around each cylinder (fig 1). The 92.07 mm bore of the 4.2 left little room for such a luxury and also required the bore centres to be moved apart so the inner and outer pairs became offset from the combustion chambers in the cylinder head which remained unchanged. Within the casting the cylinders were now joined together in two groups of three, a so-called siamesed block. Coolant flow between cylinders was still thought desirable and was achieved by the rather cumbersome means of machining a hole through from one bore into the next just below the top deck. Of course this meant that another change had to be introduced - lined bores to seal off what now became narrow coolant passages. It was to be many years before the slotted block was introduced to permit coolant flow between bores without the need for liners. In this respect the 4.2 was a bit of a bodge driven by the need for extra capacity.

When the 3.4 engine size was resurrected in the mid-seventies it was really just a small bore version of the 4.2 with siamesed bores, liners and straight port head and was some way removed from its illustrious ancestor. This 3.4 always had S.U. carbs like its namesake but was cursed with the appalling AED which the 4.2 was fortunate to escape from for its final years. Nothing highlights the superficial nature of some aspects of Jaguars much hyped "Quality Drive" of the early 1980s more than the fact that the AED was never junked from the 3.4.

The first obvious signs that the XK was becoming fragile must have been when 2.8 XJ6s began burning pistons. Strangely, a hard driven 2.8 would run for ever, and the Jaguar test fleet in those days would have been hard driven in the belief that it was the sure way

to find a weakness, yet customers found that after a few weeks of gentle motoring in town, a full throttle burst to get up to motorway speed could "smoke" a piston in very short order. The reasons for it are somewhat obscure and there are varying opinions on the matter but my understanding is that extra piston dwell around TDC on account of the shorter stroke might have played a part allied to a humped piston crown that came into close proximity with the hot exhaust valve. In essence, if the geometry is such that the piston is unduly slow in accelerating away from TDC then pre-ignition can be more easily promoted by soft deposits laid down in the combustion chamber during light



One of the Archdale machines bought by Lyons from Standard; this one is rough boring the valve throats in the pushrod cylinder head circa January 1950.

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load operation. The official name is "Deposit Induced Pre-ignition" and there can be a narrow margin between survival and failure for the brief time it takes for the deposits to burn off. Unfortunately, in the case of the 2.8 the condition could, on occasions, last long enough to melt a piston.

The Manufacturing Facilities.

Perhaps this is time to look at how the XK was made. It is fairly common knowledge that (Sir) William Lyons bought the machinery on which the XK engine was to be produced from Sir John Black of Standard Cars in circumstances in which it was thought prudent to whizz the payment cheque round before Black could change his mind.

So, an engine of advanced design was to be made on second hand machinery. An astute person can profit from such a situation if the machinery is good enough, but problems arise if the machinery wears out and can no longer maintain accuracy. I doubt if it was even considered that much of this same machinery would still be in use 30 years and more later although of course some of it had to be renewed.

In fact the XK engine was never a true mass-produced engine - it was selectively assembled with various grades for cylinder bores, pistons, and even gudgeon pins. The cost of skilled labour increased with time, whilst the ability of the machinery to produce accurate components declined as it wore out, so by the 1970s the poor old XK really had its back to the wall. Who would want to invest in new machinery to keep a near 30-year-old engine going? - certainly not British Leyland, who then had control - and would a wise man advise otherwise? Of course, BL was never awash with money and Jaguar was probably regarded as having a need for

substantial investment that they were not in a position to provide. In more recent times I am sure Ford were unpleasantly surprised to find how much it was going to cost to get Jaguar up to date. Perhaps it was easier for BL to just let it sink or swim and apply pressure to keep production up at all costs in the interests of desperately needed short term cash flow, regardless of any effect on future sales. It is easy to blame BL for Jaguar's ills, but in fairness BL did not have a total monopoly on bad decision-making. If you doubt that just consider the bland and unimaginative body colours offered by Jaguar in the 1970s.

What comes next?

Of course, an XK replacement should have been initiated at a much earlier date, but the intended V8 derivative of the V12 was just not good enough, neither were the 2 and 4 valve slant six prototypes based on one cylinder bank. Had this been known at the time it is quite possible the V12 would never have made it to production. Actually one could easily look at the now defunct 2.9 variant of the AJ6 engine and imagine that it descended from the V12 and Slant Six, but in fact the AJ6 evolved from a late 1970s four-valve engine based on the XK block (fig 7). The existing head stud pattern necessitated the curious feature of having the head bolts passing through the camshaft caps, which carried over onto the AJ6 and

Two Christmas Blondes

There were two blondes who went deep into the frozen woods searching for a Christmas tree.

After hours of subzero temperatures and a few close calls with hungry wolves, one blonde turned to the other and said, "I'm chopping down the next tree I see. I don't care whether it's decorated or not!"

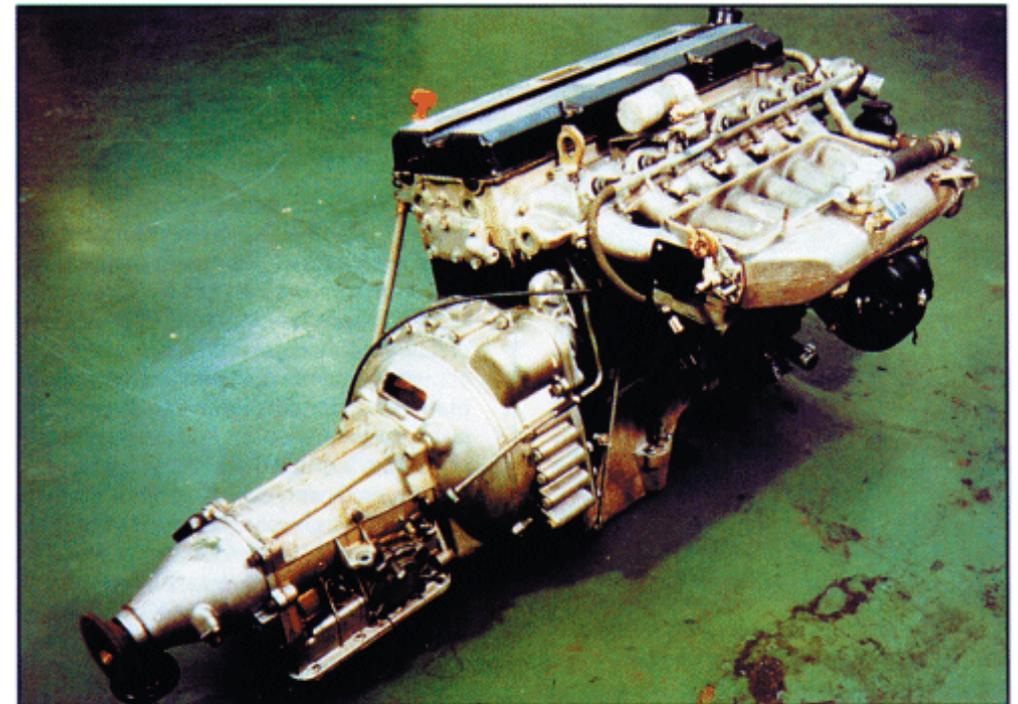
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later AJ16 engines. As the project progressed the cylinder bore spacing was increased to be the same as the V12 so that the May head could be more easily adapted for the 2.9.

70s Decline.

As the 70s progressed so the shortcomings of the poor XK became more exposed and it began to wilt. Bore grades were reduced in number, as were piston grades, so piston/cylinder fits considered too sloppy to be acceptable in the 1950s became OK for the 1970s. Piston slap from cold became noticeable, as did "little end knock" which, strangely, could be best heard by standing a few yards in front of the car. Most engines were not too bad but the worst were getting to be a bit clanky for a "Quality Car".

Around this time the sump was altered and this introduced further problems. To meet the ever tightening exhaust emission regulations in the U.S.A. the XK was equipped, as we saw earlier, with L Jetronic fuel injection and a three-way catalytic converter, which needed to be placed nearer to the engine than had been the case with the earlier oxidising catalyst. The only way the catalyst could be accommodated was by cutting off the "ear" of the sump that was in the way. Somebody said, "why not cut both ears off the sump, simplify the casting and just raise the oil level" - so that was done. Sometime after that it was noticed that if a car was left idling on a hill then one of the crank throws would hit the oil and make a noise easily confused with "big end" knock. Just to compound the problem an epidemic of real big end failures started



Ultimate development of the XK engine was the four valve experimental version from which the AJ6 evolved. Photo: Jaguar Cars.

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around the same time. Spates of big end troubles were not unknown on the XK but the outbreak in 1978 was the worst by far.

A situation now existed in which production engines could display several faults:- piston slap, little end knock, oil slap, and big end knock. The latter was further complicated by variability in the surface finish from the crank grinding process and because some engines were not noisy but could suffer sudden bearing failure, whilst others knocked quite audibly but did not fail.

Around the same time it had been decided to relax the interference fit of the tappet guides, which seemed all right for a while until they started working loose in service. (This problem gave graphic proof of the quality of Jaguars chill cast camshafts which could happily bash a loose tappet and guide to smithereens without suffering in any way.) Even the well-proven skew gear drive to the distributor began to fail following a minor modification.

Another change was that the block settling time was cut from, I think, 6 months to 3, referring to the practice of leaving castings outside to stabilise and for stresses to be relieved naturally before machining. There is no such thing as a totally rigid engine and it was known that deflections of as much as 0.010" could take place around the centre bearing structure of the XK block under high speed loads, which gives some idea of the stresses generated even in normal use.

The reduction of settling time for the block may well have contributed to the formation of cracks between bores which now became common with the slightest overheating provocation. The so-called slotted block mentioned earlier made its appearance around this time to simplify production.

A shaft carrying a gang of circular cutters machined transverse slots between each pair of head studs to create coolant passages between bores without need for liners. For some reason a few of the early slotted block engines burnt oil heavily whilst others were fine - by XK standards - although no XK ever set records in this respect.

Really, apart from the 2.8 situation, most of the problems were largely the consequence of the XKs age and the state of the tooling with which it was made - not to mention a dispirited workforce aggravated by myopic management from on high. The exception was the bearing trouble - and to find the origin of that we need to go back in time - to THE Mk X SALOON.

The Bearing Saga.

Now it turned out that the Mk X bodyshell could resonate in sympathy with, and amplify, normal main bearing noise from the crankshaft, so rather than redesign the bodyshell it was easier to alter the bearings to detune the crank vibrations to a different frequency. Actually a very effective way of eliminating main bearing noise is to bend the crank slightly (or even deliberately machine it out of true as some manufacturers have been known to do) but this was thought impractical as a production process. The method chosen was to switch from a full



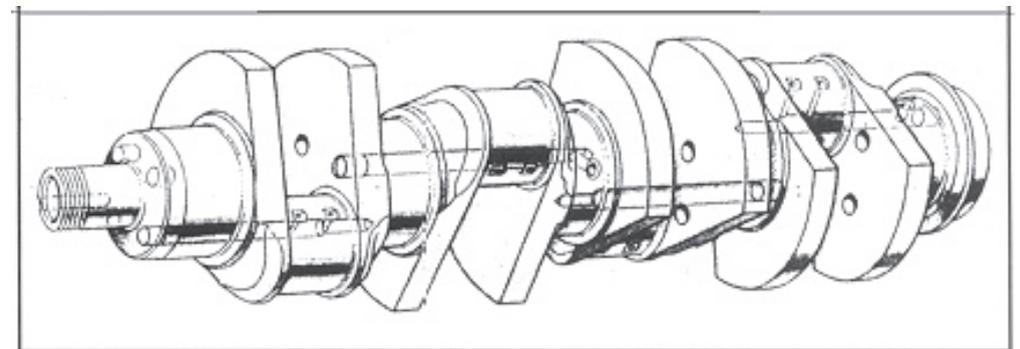
TECHNICAL TOPICS

oil groove main bearing to a half groove arrangement with the lower shell being plain over most of its surface. The XK always had cross drilled main bearings and therefore would still have oil feeding into one end or the other so an adequate supply to the crank pins should still be assured, one might think. The trouble is that a whirling crankshaft generates centrifugal forces in the oil within its passages, and the oil has to overcome this force to enter through the main bearings before being flung out to the crankpin, any entrained air tending to remain at the centre of the crank. The centrifugally generated pressure at the crank pin rises as the square of the speed of rotation, and at high speeds will be considerable, so any excessive clearance in the bearing will allow too much leakage. In fact some early development was aimed at curbing centrifugal pressures and resulted in the right angle drillings at the crank pin but the situation had now changed for the worse.

The oil entering the crank drillings from the main bearing grooves is also subject to centrifugal force which opposes this flow and a certain critical speed will eventually be reached, hopefully well above normal operating speed, when the quantity of oil flowing into the crank will not make up for

the leakage at the crankpin, with catastrophic results. Very high revving race engines use high oil pressure and have the drillings only just below the surface of the bearing journal, in any case of much smaller diameter, to alleviate this problem. Cosworth coined the term "low pressure crankshaft" when they applied the principle to the legendary DFV, but as far as I am aware, the idea originated in the BRM V8 of the early 1960s.

At low speeds the situation is quite different because then there is negligible centrifugal pressure so gallery pressure alone feeds the oil into the crankpin bearing. The success of the entire bearing system relies on a delicate balance between gallery pressure, centrifugal pressure, oil passageways and bearing clearances and whilst most engines have a generous margin of safety, in the case of the XK changing to a half groove main bearing considerably reduced it. It is perhaps now easier to see how the oil flow into the cross drilled main bearing, far from being steady, actually must undergo constant reversals as the feed changes from end to end thereby reducing the average flow. To make sure that oil would still be able to form an adequate lubricative film on the crankpin Jaguar did something rather unusual -



BRM V8 crankshaft showing drillings just below the surface of the main bearing journals.

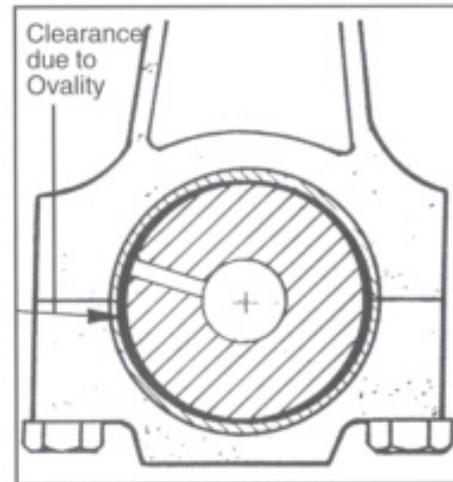
TECHNICAL TOPICS

THEY MADE THE BIG-END BEARINGS OVAL.

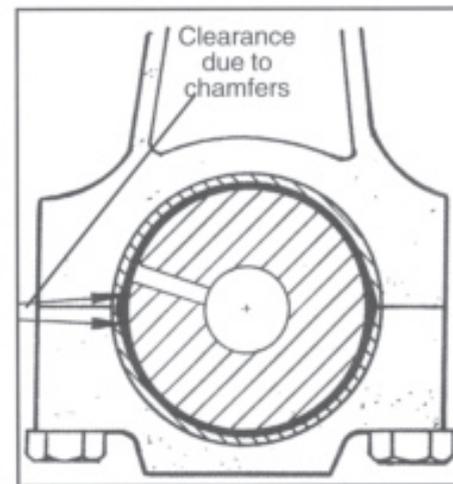
The idea of this was that by providing extra clearance in the lighter loaded areas around the sides less oil pressure would be needed to fill the bearing yet the average clearance would still be close enough to prevent too much leakage. Of course we are not talking about out-of-round crank pins, the bearing shells were formed to give the required clearance (fig 9). The idea worked - most of the time - but now and again tolerance conflicts would stack up, possibly aggravated by lapses of crank grinding quality, to cause a spell of bearing trouble. Such events were often signified by a change of the drilling arrangement of the crankpins. Some were cross-drilled, some had a single drilling at 90 degrees, others had a single inclined drilling, and some had a slight relief across the drilling. Each change was sufficient to shift the delicate balance of the bearings back to a safe condition to suit the circumstances. The primitive manufacturing arrangements made such changes easy. XK crankshafts were drilled on a sequence of ancient radial arm drilling machines (really a jobbing type of machine) locked in position over a jig in which the crankshaft was placed.

The bearing ovality was not great - about 0.002-3"- and continued for many years until around 1977-8 when it was decided that the bearing shells could be made more easily (cheaply?) if they were circular and the necessary side clearance achieved by machining chamfered reliefs at the mating faces (fig 10). Clearly this change upset the delicate balance on which the bearing depended for survival and small variations of clearance in the critical relieved area, in combination with normal bearing tolerances, could make the difference between insufficient oil flow into the bearing and

too much leakage through it. In fact the change had gone ahead under pressure without being thoroughly tested and the end result was that for a short period almost every single engine was a potential failure and some could not even make it through the factory gate. In retrospect one has



Elliptical bearing showing oval clearances at side of crankpin (fig 9).



Relieved bearing showing tapered clearances at side of crankpin (fig 10).

TECHNICAL TOPICS

to wonder why, after the Mk X and 420G were discontinued, nobody thought about returning to a conventional bearing system. Really the problem could have been brought under control by tuft-riding the crankshaft, as on the V12, to give it a hard wear resistant surface better able to tolerate marginal lubrication conditions, but it was 1983 before this happened. The delay was because of fears that the treatment would add to the problems by causing distortion of the crankshaft.

In a small way I was personally involved in these bearing problems of the XK engine during 1978. I knew then that it was a fragile engine but it was only after I left Jaguar and encountered cars not long out of warranty with serious engine problems in other ways as well that I realised how bad things really were. Most engines would survive the warranty period but after that they could be really bad news, yet no knowledge of this had seemed to penetrate the factory environment. It wasn't so much that the engine would expire without reason, it had just become very unforgiving of the slightest hint of neglect. An all too common example was that if the wrong antifreeze were to be used the radiator would lose efficiency due to deposition inside the tubes, causing the engine to overheat. Most other engines would be reasonably tolerant of such abuse for a short time but an overheating XK from around 1980 could be a total wreck in minutes and a simple hose failure could be catastrophic. Strangely, whatever damage occurred, be it loose tappet guides, gasket failure, bearing failure, block or head cracking, (often all of these together!) always seemed to start with the next to back cylinder. This would indicate that this cylinder was more thermally loaded than the others, probably because of local stagnation of coolant flow in

extreme conditions, but such things happen to some extent in most engine designs.

Did nobody question the high number of exchange engines that must have been sold during those times? - or did they just rub their hands and take the money?

One's judgment is surely coloured by circumstances and if I had been party to the XK successes of the 1950s then I am sure my attitude would be different. As it is, I experienced the XK at its worst so it is not within me to regard it with much affection. It is too much like the proverbial curate's egg for my taste.

Roger Bywater, AJ6 Engineering, Nov 1997.



Two views of Barrie Cannon's hood.



Technical Tips

Jürgen Bremer asks on the subject of weather equipment -

Q - "Under the section "bodywork" in the Ronart brochure, you can see a Ronart with a special windscreen and soft roof-top. Do you know, where I can buy these parts and how much would it cost?"

A - There are a few cars which have these options. More have the flat screens than have the full hood.

My previous W152 (which went to Sparreholm's Slot Museum in Sweden) had the full screen and hood.

In principle you might be able to order this kit from Arthur, but you might be better to advertise in the magazine for someone who has the kit but does not use it.

However, personally I do not really recommend it. I hardly ever used mine. But the main practical difficulty would be fitting the flat screen around your finely engineered water-repellent/aeroscreen mounting. That in itself would be possible, but if you fit the flat screen you will need windscreen wipers and this would involve mounting a motor under the scuttle and angling 3 wiper spindles through the scuttle. Personally I would not do that because it would mess up the purity of the car's lines.

Anyway, it is up to you, and clearly your engineer could achieve it. First decide in principle; then see if you can acquire the kit.

Here are some pictures of typical hood installations.



Technical Tips

Graham Banks asks about rear engine-mountings -

Q - "You may recall when we were speaking I mentioned to you I was having trouble with the gearbox mounting. You suggested the V12 mounting may fix the problems and that you would be able to supply me with the part numbers. Can you let me have them please and I'll give it a go? Is there anything special regarding fixing them or are they a direct replacement?"

A - I checked this with my mate Brian Ball (excellent Jag engineer, but based in Portsmouth). He did this mod for me on my S6, and on my new V12, and for Roger Goswell's S6, and Tony Legon's S6.

In Tony's case the original pin had stripped the thread out of the rear of the gearbox (because, in Arthur's original scheme of things, it is a solid fix with no give) so he had to weld that up and rethread it.

But he tells me that normally it is possible to remove Arthur's mounting, remove the long pin, chop it down in length and then thread internally to 3/8" UNF (we think) - anyway thread it to match the male thread of the V12 mounting.

The unit used is the standard V12 engine mounting (one each side of the engine) which has a plate base, thick rubber sandwich, and male thread on top. The base plate is just bolted onto the W152 chassis plate; you may need to drill a couple of bolt holes to secure the rubber mounting in the right position under the transmission. You may need to shim a little to get the right height, to ensure that the position of your gearlever remains as it was.

The Jaguar part number is (was) C34910.

Will you do this yourself or will you get it

done for you? Let me know how you get on.

R - "Just to say thanks once again for the information on the gearbox mounting. I carried out the task on Sunday in just under a couple of hours and the result is fine."

Item on Head Gasket Failure - by Roger Bywater

Unfortunately it is quite difficult to determine head gasket deterioration, unless the engine is stripped on a regular basis. If you wait until the head gasket has failed, the resulting damage is quite considerable due to the fact water and oil are sucked into the combustion chamber. Even if this is in small quantities, water and oil mixed with the combustible fuel, rapidly accelerates detonation. The resulting appearance to even the most professional eye, would make you think the engine has been programmed with excessive ignition. Since the cylinder head and pistons will usually be eaten away, giving the appearance that somebody has chipped away with a small chisel on both surfaces. The effect accelerates at an exponential rate. In some tests we have seen the damage described appear in just seconds.



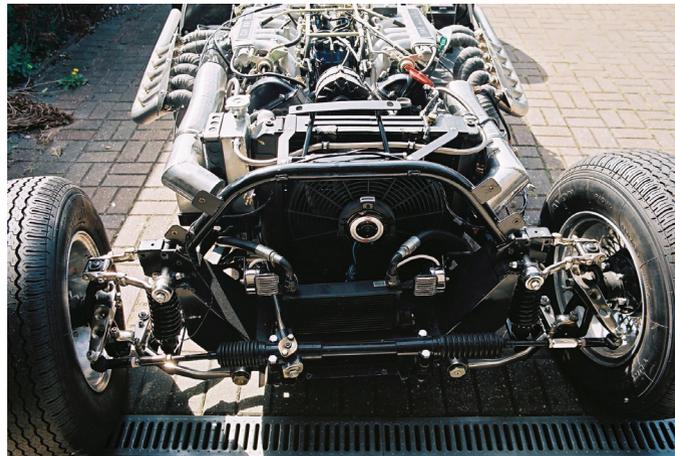
I lost my job today !

UNDER CONSTRUCTION

Graham's car - the final stages.



2003
A typical well-ordered Ronart builder's garage scene.



2003
This is the W152 V12 'unclothed'. All this engine is enclosed in the torpeda shown on the front cover.



2004
Nearly ready for painting. The silver cylinder is the Accusump - anti-surge and oil primer. 2005 is covered on the next pages.

A Christmas Tradition

It was a starry night and the snowflakes drifted down gently. The snowcrust sparkled in the lamplight at the North Pole. Sleigh bells jingled in the distance. It was supposed to be a happy time, but it wasn't.

Santa was really pissed off. It was Christmas Eve and NOTHING was going right. Mrs. Claus had burned all the Christmas cookies. The elves were bitching about not getting paid for the overtime they had put in while making toys. And to top it all off, the reindeer had been drinking all afternoon and were completely useless. They had taken the sleigh out for a spin earlier in the day and crashed it into a tree, breaking off one of the runners. They were still stumbling around outside, giggling and shaking their sleigh bells.

Santa was redder than usual with anger. He drank another slug of scotch, and then bellowed, "I CAN'T believe it! I've got to deliver millions of presents all over the world in just a few hours from now and all my reindeer are drunk, my elves are on strike and I don't even have a Christmas tree! AND I sent that stupid little angel out HOURS ago to find a tree and he isn't even back yet! What the HELL am I going to do?"

Just at that moment, the little angel opened the front door and stepped in from the snowy night, dragging a Christmas tree behind him. He said, "Yo, Santa, where do you want me to stick the Christmas Tree this year?" And thus the tradition of angels perched atop Christmas trees came to pass.



Fun Signs

Spotted in a toilet of a London office:
TOILET OUT OF ORDER. PLEASE USE FLOOR BELOW

In a Laundromat:
AUTOMATIC WASHING MACHINES: PLEASE REMOVE ALL YOUR CLOTHES WHEN THE LIGHT GOES OUT.

In a London department store:
BARGAIN BASEMENT UPSTAIRS.

In an office:
WOULD THE PERSON WHO TOOK THE STEPLADDER YESTERDAY PLEASE BRING IT BACK OR FURTHER STEPS WILL BE TAKEN?

In an office:
AFTER TEA BREAK STAFF SHOULD EMPTY THE TEAPOT AND STAND UPSIDE DOWN ON THE DRAINING BOARD.

Outside a secondhand shop:
WE EXCHANGE ANYTHING - BICYCLES, WASHING MACHINES, ETC. WHY NOT BRING YOUR WIFE ALONG AND GET A WONDERFUL BARGAIN?

Notice in health food shop window:
CLOSED DUE TO ILLNESS.

Spotted in a safari park:
ELEPHANTS PLEASE STAY IN YOUR CAR.

Seen during a conference:
FOR ANYONE WHO HAS CHILDREN AND DOESN'T KNOW IT, THERE IS A DAY CARE ON THE FIRST FLOOR.

Notice in a farmer's field:
THE FARMER ALLOWS WALKERS TO CROSS THE FIELD FOR FREE, BUT THE BULL CHARGES.

Message on a leaflet:
IF YOU CANNOT READ, THIS LEAFLET WILL TELL YOU HOW TO GET LESSONS.

On a repair shop door:
WE CAN REPAIR ANYTHING. (PLEASE KNOCK ON THE DOOR - THE BELL DOESN'T WORK.)

The SVA Ordeal

Graham Hallett recounts his trials and tribulations.

Did I mention that getting your pride and joy through the SVA is one of the most stressful experiences you will enjoy? John Ellis will attest to this.



Proudly awaiting inspection in the SVA hall.

You need to be armed with all documentation such as the Build Certificate and invoices for all major components to prove provenance.

RONART	
BUILD CERTIFICATE – RON 9908091	
Donor vehicle:	
VIN Number	2P-2148BW
Engine Number	7P6447
Daimler Double Six VDP	5343 CC
Donor vehicle first registered	01/08/78
Registration Number	URG 2T
Kit:	W152 V12
Manufacturer:	Ronart Cars Ltd
Bodywork:	Carbon Fibre
Colour:	RED/Black Stripe/Black interior
CHASSIS TYPE:	Multitubular backbone spaceframe: W152 V12 MK 2
CONSTRUCTION:	Round Tubes - 37mm dia CDS 14G tube Square Tubes - 37 x 37mm 14G ERW tube Box/sheet sections - 2MM/16G mild steel
ASSEMBLY:	All main chassis pick up points are fully aligned in main chassis jig. All sub assembly parts are aligned using separate sub assembly jigs. MIG welding is used throughout.
DESIGNED FOR:	This chassis has been specifically designed for JAGUAR/DAIMLER components.
FITTED	ENGINE - XJ V12 - DAIMLER DRIVE/SUSPENSION/STEERING - Differential Driveshafts & UJ's - DAIMLER - Propshaft & UJ's - DAIMLER - Suspension bushes & uprights - DAIMLER - Wishbones & ball joints - DAIMLER - Braking Front and Rear Discs Calipers - DAIMLER - Steering column & UJ joints Mast Cyl - DAIMLER - Steering Track Rod Ends - DAIMLER - Instrumentation, switches - DAIMLER - Water radiator - DAIMLER - Fuel pump, shutoff valve, Carb/Inj system - DAIMLER - Wheels or if fitted wire wheels, spline/spin - DAIMLER or DAIMLER Size.
This car conforms to the above build standard and this has been verified by Ronart following the build by the customer:-	
CUSTOMER: <u>MS. GRAHAM HALLETT</u>	DATE: 12 TH July 2004
VANWALL CARS LTD – MANAGING DIRECTOR	 ARTHUR WOLSTENHOLME
Vanwall Cars, RONART, Westwood Farm, Bretton Gate, Peterborough. Cambs. PE3 9UW	



These hinges are from the Factory's SVA kit - with all the sharp edges specially ground down. The Monza fuel cap is a failure, but remove it and all is well!

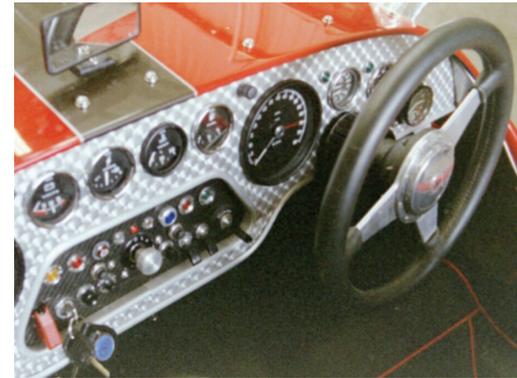
It was made much worse by self-imposed constraints - at one end the car was in prison being painted and running late, and at the other end was a fixed deadline of the Irish Tour booking. It had been a calculated risk to paint the car before SVA (John wisely took the opposite route). When the project was initiated all concerned felt that there was plenty of lee-way. How quickly that evaporates!

John Patterson at Littlehey Prison is a good, straight-forward man to deal with, but my stripes caused them a bit more grief than usual, and he was hit by some mandatory training which pulled his workforce for a few



If no windscreen or aeroscreens are fitted they cannot test (and object to) them. The pathetic central mirror is plastic and SVA-compliant. The driver's side mirror is mounted on long studding within a shaped balsa wood 'wing' covered with alloy tape. This mod was my answer to a point of failure on the first round. Now part of the SVA kit, though John has cut it in half!

The SVA Ordeal (cont.)



SVA-compliant steering wheel with no holes or slots and not wood-rim! The switch panel needs care - e.g. the alloy blob replaces the standard Jaguar light switch.

days at one point. Originally he estimated 5-6 weeks, which would have left me a fortnight to prepare for the booked SVA date, but in the end Arthur collected the painted car directly back to the factory, leaving me just two days resident at the factory in order to do the necessary.

And Arthur too, because the silencer and tail-pipes had to be made and fitted before the



My painted wings were set too far back and didn't cover the front of the wheel rim - "front wheels not within body line" - so we had to fit a new pair with SVA sidelights and plastic radius edging, mounted with coachbolts.

SVA, They were finished at about 5.00pm the night before the test in Norwich at 08.00 next morning.

All the pictures here are from the second session, the retest, and reveal the areas which we had to deal with. I had the time to take photos, whereas on the initial test I was required to assist and was ready with my toolkit to deal with little matters such as adjustment of headlights on the spot.

I am sure that VOSA have a policy of failing all cars first-time around. The same morning a new factory-built Caterham look-alike turned up late (they had broken down on the way - their maiden journey - it's much safer to trailer!). The car looked kosher but failed on as many points as my W152. The owners were gutted; they had not expected any setbacks and brought no tools with them. So I ended up helping them with several quick fixes.

Anyway, back to the beginning -



Edging strip around the number plate plinth, and gauze over the 'sharp' pipe-ends.

The SVA Ordeal (cont.)

Serial No.		Page of		Single Vehicle Approval Notification of Refusal to Issue a Minister's Approval Certificate		VOSA Vehicle & Operator Services Agency	
0104		23		(Following an Application under the Motor Vehicles (Approval) Regulations 2001)			
Vehicle NR No: 450106Z		Body Type: PASSENGER		Test Class: A013			
Make/Model: KONIG WILSTE2		Engine Make/Capacity: JAGUAR S300		VIN/Chassis No: KON990801		Engine Manufacture Date: 1978	
ITEMS TESTED		Pass	Fail	DEFECTS			
ENHANCED SVA							
E1. Anti-theft				STEERING WHEEL NON APPROVED TYPE (WOODRIM)			
E5a. Seat Belt Anchorages				BRAKE WARNING LIGHT INCORRECT COLOUR + NO IDENTIFICATION SYMBOL			
E5b. Seat Belt Installation				FRONT INDICATORS HAVE EDGES NOT RADIUSD TO 25 MM			
E14a. Protective Steering				FRONT WHEELS NOT WITHIN BODY LINE.			
E14b. Frontal Impact				WHEEL RETAINING SPINNERS NOT RADIUSD TO 30 MM			
E14c. Side Impact				VARIABLE NON RADIUSD EDGES CONTACTABLE THROUGH FRONT AIR INTAKE			
E16. Brakes				EXHAUST HEAT SHIELDS HAVE GAP IN EXCESS OF 12 MM NOT RADIUSD TO 2.5 MM.			
E17. Noise				OFFSIDE + INTERIOR MIRRORS REAR VIEW ANGLE OF VIEW NOT MET			
E18a. Emissions				SPEEDOMETER RECORDING SPEED LESS THAN TRUE SPEED OF VEHICLE			
E18b. CO/Fuel Consumption				FRONT BRAKES INEFFECTIVE			
STANDARD SVA							
1. Anti-theft device							
2. Defrosting/Defogging							
3. Windscreen Wipers/Washers							
4. Seats and Anchorages							
5. Seat Belts and Anchorages							
6. Interior Fittings							
7. Radio Suppression							
8. Glazing							
9.1 Lighting/Signalling (Obligatory)							
9.2 Lighting/Signalling (Optional)							
9.3 Aim of Headlamps							
10. Mirrors							
11. Types							
12. Doors, Latches, Hinges							
13. Exterior Projections							
14. Protective Steering							
15.1 Vehicle Design and Const. (Susp., Steering, etc.)							
15.2 Vehicle Design and Const. (Fuel/Electrical)							
16.1 Brakes (Systems)							
16.2 Brakes (Service Control/Mechanical Components)							
16.3 Brakes (Parking Control/Mechanical Components)							
16.4 Brakes (Hydraulic and Vacuum Systems)							
16.5 Brakes (Performance)							
17. Noise							
18. Emissions (Petrol)							
19. Emissions (Diesel)							
20. Speedometer							
21. Design Weights							
22. Manufacturer's Plate							
I hereby refuse a Minister's Approval Certificate in respect of the above described vehicle on the grounds that the vehicle fails to comply with the relevant requirements prescribed under Section 58 of The Road Traffic Act 1986.							
Signed: J. Bragg		Retest required by: JANUARY 13 2005		Date: JULY 14 2004		Station: NORWICH	
Name: J. BRAGG							
The following additional defects may result in the vehicle not complying with the requirements of The Road Vehicles (Construction and Use) Regulations 1986.							
BRAKES DEFECTIVE							
(See notes overleaf)							

I arrived at Vanwall with our trailer on Tuesday morning with a personal schedule to fit the rev counter and calibrated speedo which arrived from Speedy Cables in the nick of time (1 year from order!), rewire temporary SVA things like brake warning lights, and fit the factory SVA kit.

I needed Jethro & Jim to make and fit the silencers and tailpipes, chassis plate, seatbelt mountings. We also found that the painters had removed the side-panel grilles and not returned them, so the first panic was a quick drive down to Cambridge to extricate them



The steering tie-rods have to be covered with absorbent material and attached by tie-wraps.

Here's the result of my first test -

- We knew about no slots or holes but thought woodrim OK.
- I used a plain amber warning light, without the symbol.
- We were unaware that there is an SVA version of the torpedo.
- This was a show-stopper - my red front wings did not cover the wheel rims.
- We really thought the S3 "E" hex spinners would be OK.
- I thought I was being helpful by leaving the front grille out.
- Arthur had to remake the heat shields with smaller holes.
- Mirrors needed extensions to provide field of vision.
- Speedo was reading 17.5% over - not sure how to fix this!
- Front brakes were ineffective - well, they stopped me pushing it in the garage but it turned out that that was about all.

The SVA Ordeal (cont.)

because the factory had insufficient material in stock. They had lost a couple of them, but somehow Neil managed to get it together and bond the grilles in carefully without damaging the paint (a constant worry).

Next, checking out the engine, I noticed that the ammeter showed a constant heavy discharge. Fearing a dying battery during the static test, the next few hours were wasted in removing the alternator, tracking down an electrical engineer and testing the alternator. It was fine - a bit more thought would have revealed that I have wired the ammeter the wrong way so that the discharge was actually a charge. Actually fixing this is not as simple as it sounds because of the way I have routed the big wires, and I haven't done it yet - another winter job.

We were worried about the radii on the wing edges because the carbon-fibre is thinner and sharper than GRP. Arthur supplied me with as much push-on plastic beading as required, to take with me to the test,



On the day before the test we found that the factory's hex spinners were lost, so Arthur ordered a new set for delivery to the SVA station on the very morning. They let me fit them, and then said "they are a fail"! So a week later ingenious Arthur was at B&Q buying cisterns and dog-bowls to cut down. In the end he moulded perspex domes, painted them silver & affixed with tie-wraps.

hoping that they might take my intention as sufficient. I found later that this stuff requires battering with a rubber mallet to get on, so it would have destroyed my paint finish on the wings - depressing!

Anyway a sweaty two days ended at about 8pm on the Wednesday when I set off for Norwich with GH202 on my trailer, arriving at my B&B near the test station at 10.30 and had to find a secluded parking space for the rig. I certainly appreciated a shower and some sleep.

Crack of dawn and off to find the place and unload the trailer. You see the result on the previous page and the killers were the front wings (not covering the wheel rims), the brakes, and the speedo calibration about which I was pretty annoyed since the time, the cost, and all the measurements I had provided in order to get an accurate instrument.

So, back to Peterborough for a debrief with Arthur and then I trailed the car back to Surrey for one of our regular Noggins & Natters where I was commiserated with.

I was able to book a retest the next Thursday afternoon, and that just left a couple of days to get DVLA'd - a tall order.

Good old Speedy Cables said "Oh, weren't there any instructions?" [no]. Turns out the electric speedo had holes in it to access adjusters! So a call to explain to Dennis Broughton, the tester, got his agreement to help me calibrate it on the day, on the rolling road.

My main task was fixing the brakes, and Tony kindly spent his Sunday afternoon bleeding and rebleeding and getting nowhere! We took the front wheels off and Tony gazed at the AP calipers and said "What are those?"

The SVA Ordeal (cont.)

There was another bleeder outboard, hidden by the rim. Jag calipers only have the one. Once we bled the second nipples, eureka!

As a precaution I had booked an MOT next morning before work, through which the car sailed giving a bit more confidence. During that very first 5 mile round-trip some big bird dropped all over the bonnet. I left the car in the garage and cleaned it off that evening, but by that time it had eaten into the varnish!

On the Wednesday the rig and I returned to Vanwall where Arthur solved the spinner problem, gave me a pair of new wings to drill and fit, and Jethro set to making a new pair of silencer covers out of stainless that Arthur had had laser-cut. I potted around making cups of coffee in the single factory mug and spent hours putting a bead of mastic under the inner edges of the rear wings in order to enlarge the radius.

I was still a bit pressured but really we were now quite confident that the next afternoon's test would be OK. And it was. Dennis complimented Arthur on the spinner covers, didn't even look at my rear wings, let me sit in and declare what I could see out of my rear-view mirrors. In fact most of the necessary ticks had been marked before the car was off the trailer and in the hall again.

We put the car on the rolling road and, with Dennis in the driving seat, I twiddled the tiny screws until the speedo was spot-on with his machine. It's quite exciting doing 70mph while going nowhere.

On this occasion they were quite effusive about the car; Dennis said it was his ultimate kit car and that he was very envious. I felt like offering him a drive around Norwich!

In fact I just loaded up and went back to Peterborough where I removed all the SVA

kit, refitted my own front wings and trundled off back to Surrey.

On the Friday morning I went to the DVLA Wimbledon with all the papers and made an appointment for *another* inspection on Monday. I drove up that morning (without number plates); they were very helpful but said there wasn't a chance of getting it registered (and number transferred from our Shogun where it had been for 2 years) within a few days. So I was reconciled to going to Ireland on Wednesday with number plate but no tax.

Once home in the drive I restarted the car, or rather I didn't. The first injection fuel pump had seized. OK no problem, I fitted my brand-new spare while Freddie and Tony very kindly were there helping me try to cure leaks on the manifolds and grind down the shrouds



At the second attempt the brakes were excellent - 84% front and 38% rear.



The SVA Ordeal (cont.)

which were fouling the bonnet-sides. Tony was real hero because he had had a saga of his own with a dud brake master cylinder.

The new pump did not work! So a panic call to Brian Ball, and I met him half-way to Portsmouth where he gave me two working units, one of which, and a new filter, I fitted very late that night getting soaked in petrol of course.

Tony and I were due to leave Kingswood next afternoon (Tuesday) to drive to mid-Wales and overnight with my brother-in-law Peter Tonks (who accompanied me on the Nurburgring tour) in his B&B and then drive on to Pembroke Wednesday morning. However, Tony discovered that he had a hole in his petrol tank and had a desperate fight to get that sorted during the Tuesday.

On the Tuesday morning I got a call from the DVLA saying they needed some extra identification, so I had to go up in person, immediately. Couldn't admit that I was off on holiday in the car! Anyway when I got there I found that everything was done - new tax disc and everything - 2 working-days - must be a record.

When I drove home and parked again--



The louvres are alloy panels set into the carbon-fibre. Unfortunately there will always be hairline cracks owing to flexing and differing co-efficients of expansion.

- the next pump had died!

I set about fitting my last pump and packing, but Tony Legon was really up against it, and so we had to cancel our visit to Pete in Wales, and miss out on a handsome joint of beef bought specially for us!

Tony was desperately collecting and refitting his repaired tank and we planned to join the main convoy in the morning.

The whole SVA thing would have been much more pleasant without a deadline. It is a rewarding achievement though, and you tend to know your car!

It's going very well now, but there is a long list of to-do's to tick-off, and a couple of problems to sort before I can just jump in and drive - wonderful car though!
The Prize - The MAC certificate

British National Type Approval Minister's Approval Certificate		VOSA	
issued under Section 58(1) of the Road Traffic Act 1988 by virtue of the Motor Vehicles (Approval) Regulations 2001		Vehicle & Operator Services Agency	
The motor vehicle having the identification/chassis number:			
RON9908091			
having been examined under Section 58 of the Road Traffic Act 1988, it is hereby certified that on the date of the examination this vehicle complied with the relevant requirements prescribed under Section 54 of the Road Traffic Act 1988.			
Make:	Design Weights:		
RONART	Axle 1	680	kg
Model:	Axle 2	720	kg
Class Code: AOB	DVLA Model Code: NA	Axle 3	NA
Category (passenger(M1)/goods(N1)):		Gross Weight	1500
PASSENGER		Train Weight	NA
Fuel Type e.g. (Petrol/Diesel/Gas Bi-Fuel):	NOTE: In the case of a goods vehicle the design weights shown are also the plated weights.		
PETROL	Signed by authority of the Secretary of State:		
CO2: NA	HC: NA	J. Broughton	
Station Location:	Name in CAPITALS:		
NORWICH	DBROUGHTON		
Date of issue:	Authentication Stamp:		
JULY 22 2004	SVA TESTING VEHICLE INSPECTORATE JUPITER ROAD NORWICH NR9 6SS CVTS 60038		
Serial Number: AA 198466			

The SVA Ordeal (postscript)

The objective all along had been the Ireland Tour and we made the dawn departure from Freddie's on Wednesday 28th.

Well, we all met up OK and set off via Steve Trodd's and made a leisurely convoy down the M4 without any incident. I don't think I exceeded 2500rpm on the entire journey - that represents 90mph in 5th.



About 10 miles before Pembroke Dock we saw Peter Jordan and Chris Logue in a lay-by and stopped to hook up with them. At that point the fourth fuel pump must have decided enough was enough because, although the car started, and moved a couple of hundred yards, it then died. There must have been enough pressurised fuel in the rail to get just that far.

The convoy had to press on, leaving me forlornly waiting for a Relay home. As the AA man arrived, Freddie & Steve came back and left me the Jeep, insisting that I catch a later ferry and join the tour. Such selfless heroism!

The AA man told me to leave immediately because he thought I could still catch the ferry, and he was right.

The Relay man got the Ronart home safely at about 10.00pm and the girls pushed it up the drive into the garage. He said it had nearly caused accidents by other drivers rubber-necking and taking photos. Plus ça change.



The diameter of the original swirl pot (left) was much smaller than the Jaguar version (right) which may have constrained the flow



and overheated the pump. Also, the XJS swirl pot (from which this was fabricated) has a built-in filter to catch swarf. This also might have been the culprit.

DATE		RESCUE/RECOVERY JOB SHEET	
28/12/04			
JOB No.	NAME	CLUB	
6706011	Mr. Haller	A.A.	
MAKE	COLOR	VEHICLE REG.	
SAAB	RED	GHH 202	
MEMBERSHIP No.	FAULT REPORTED	FAULT FOUNDATION TAKEN	
	Fuel injection		
EXPIRY DATE			
03/12/2004			
LOCATION	DESTINATION		
A477 - A4139 Pembroke	SAAB to garage to put up for relay to Surrey for relay		
TIME OF CALL	TIME ON SCENE	MILEAGE	
12:30	13:00	250	
VEHICLE CONTENTS (Describe as appropriate)			
None with Vehicle			
VEHICLE CONDITION BEFORE LOADING: ANY DAMAGE PRESENT TO BE RECORDED (if none please write none)			
DENTS, BREAKAGES OR SCRATCHES			
I hereby confirm that I have specifically requested the operator to load/unload the vehicle, fully understand and acknowledge that all damage reported on this form is due to negligence, in and small parts, equipment, etc. and shall be repaired at the first opportunity.			
Signed: <i>[Signature]</i>			
Customer Signature: <i>[Signature]</i>			
Operator Signature: <i>[Signature]</i>			
VEHICLE RECEIVED IN CONDITION SHOWN: YES/NO			
Signature: <i>[Signature]</i>			
MECHANIC'S NAME		VEHICLE	
Son		LPI	
BASE OUT		PICK UP	
MILEAGE		DROP	
TIMES		BASE IN	
TIME COMPLETED		CUSTOMER SIGNATURE	
		DATE	

The SVA Ordeal (aftermath)



Dear Arthur

A belated thank you, to you, Jethro, Jim and Neil, for your efforts in helping me complete my W152 V12 in time for the RDC trip to Ireland. Belated because of the frenzied time-pressure leading up to that deadline, and then the trip itself.

As you know, in the end I was thwarted because it needed a couple of weeks of bedding-in, which would have sorted out the fuel problem that caused the car to be "Relayed" home from Pembroke. Nevertheless we still enjoyed a good holiday with the other Ronarts.

I am very pleased with the end-result. The paint-job by John Patterson's chaps is excellent, and a very striking result. Your ingenuity in overcoming some of the SVA challenges was typical. The help of your team was invaluable. I think we have



significantly built up the "SVA Kit" and experience for forthcoming builders.

I was particularly grateful for your putting up with me "setting up camp" in the factory for several days and pottering away with what I had to do while you guys finished off the exhaust system (4.30 the afternoon before the SVA). And I appreciate your keeping the factory open to me into the late evening more than once.

I am delighted with my Ronart, which represents my ideal of the concept. Much of the credit is due to you, and to Jethro who contributed a significant proportion of the body and exhaust system fabrication. I shall be very proud to display it and proclaim the merits of Ronart/Vanwall - and of course I look forward to much pleasure in driving it.

Regards,

GHH.

Forthcoming Events Calendar

Please do let the Editor know well in advance of any events which are worth listing here. If you are planning to go to a Car Show and are willing to organise a few other Ronarts into turning up, please call Benjamin Weitzmann for the loan of a Club banner or flagpole.

Feb 25-27	Historic Motorsport Show - Stoneleigh
March 10 Thursday	Southern N & N - The Sun at Dunsfold
March 20 Sunday	Jaguar Spares Day, Stoneleigh
April 14 Thursday	Southern N & N - The Sportsman at Mogador
May	National Kit Car Show, Stoneleigh
May 1 Sunday	Rumble at the Rock, Rockingham
May 12 Thursday	Southern N & N - The Black Horse, Chorleywood
May 28 w/e	Ardennes Week-end ?
June 16 Thursday	Southern N & N - The Sun at Dunsfold
June 26 Sun	Bromley Pageant of Motoring - small Club Stand?
July 14 Thursday	Southern N & N - The Fairmile at Esher
July 8,9,10	Goodwood Festival of Speed
July 31 Sunday	Weitzmanns Open Day - Rickmansworth
Aug 18 Thursday	Southern N & N - Three Horseshoes at Knockholt
Aug 21 Sunday	British Sportscar Day, Rougham Airfield, Suffolk
Aug	Beaulieu JDC Rally
Sept	Goodwood Revival
Sept	National Kit & Performance Car Show, Donington
September	Trip ?
Sept 22 Thursday	Southern N & N - The Sun at Dunsfold
Oct 20 Thursday	Southern N & N - The Fairmile at Esher
Dec	AGM & Club Xmas Lunch ?

KEY: Main Event Local Event General Interest

The Factory SVA Kit (currently)

- Set of hexagon wire wheel spinners
 - Perspex covers
 - Front wings fitted with SVA-compliant sidelights, coachbolts and SVA-compliant edging
 - Boot hinges with sharp edges ground off
 - Replacement for the standard Jaguar dashboard light switch
 - Balsawood extension for driver's side mirror (cut in half by John Ellis to support LHS as well)
 - SVA steering wheel
 - Rubber edging for number plate plinth
- SVA central rear view mirror (plastic)
 - Track-rod-end covers
 - Tailpipe grilles
 - Brake level warning light with symbol (must be operated by a separate test switch)
- You will need to ensure that the factory have riveted or welded a VIN number plate to the chassis.
- Make sure you can show the Chassis Build certificate from RCL (which shows the provenance of the major components) and invoices for the major items such as the kit stages, engine, gearbox etc..

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Email Addresses!

Please send Graham Hallett an email and register your address with the club; We are finding it an increasingly efficient way of keeping in touch cheaply AND receiving quick feedback on issues with members.

Club Website - www.ronartdriversclub.com