



To Poland in (a) Triumph

Junk – masses of it, unfortunately I have acquired masses of junk during the past few decades. This is perhaps the consequence of my upbringing during the years of austerity in post Second World War London: as a child growing up in Shepherd's Bush, my parents instilled in me the importance of looking after the few material possessions which we had. Things were never thrown away – they were always repaired. Using the three tools which we had – a hammer, a screwdriver and a pair of pliers – my father would bring back to life a wide variety of everyday objects such as door hinges, cupboards, shelves, shoes, electric plugs, leaking taps and chairs.

{ Amongst the junk which I have amassed are six motor cars }

Amongst the junk which I have amassed are six motor cars which “litter” the streets of North London: 4 Triumph Herald 13/60s (*Junk? – Ed*) and 2 Volvo 144DL saloon cars (*Ah – Ed*). They are all taxed, MOT'd, eminently roadworthy and not displeasing to the eye. They are all used regularly. Their total cost was £480. This is how I acquired one of them: in 1989, at a time when I already owned 2 Triumph Heralds (and therefore didn't need another car), the father of one of my pupils at Highgate School (where I had been teaching since 1975) who knew that I “dabble” in car mechanics, offered me a white Volvo 144DL saloon. He had been told by a local garage that there was severe corrosion on the underside of the car, and that the steering fault – the car kept pulling to one side – was the result of damage which affected the geometry

of the steering assembly, and was probably caused by one of his sons driving the car into a kerb. The car, in the opinion of the mechanic, was not economical to repair. I was delighted at the prospect of acquiring a car, which I remember only 10 years earlier as being an expensive luxury saloon, which I could never afford to own. As I drove it home, it did indeed keep pulling to the left, and on the underside I did find a rust hole – about one inch in diameter, in a rear wheel arch. The steering problem turned out to be caused by tyres with different treads and with different pressures. Fibreglassing the rust hole took a few minutes, and with some other minor work, I had become the proud owner of a splendid vehicle – at no cost!

I keep all my cars, because I cannot bear the thought of throwing away a large, complex and wonderfully useful item of modern technology, simply because it is not cosmetically perfect. Furthermore, these cars are amazingly cheap to run, easy to repair and I would never consider selling them since their market value seems disproportionately low.

My efforts at roadside car repairs did not go unnoticed by colleagues and pupils at Highgate School. In 1986, I was allowed to use a staff school garage, which I immediately began to exploit for various repairs: small ones at first and gradually more complex ones. Donations in the form of tools and odd car components started to flow in. After I had rebuilt two Herald engines in the early 1990s, I started to use a third engine to illustrate mechanisms and steels as part on the A level CDT syllabus which I was then teaching. Then I started to teach car mechanics as a course for sixth formers.



At the same time I further developed my skills and knowledge: welding (both oxy-acetylene and MIG), and the use of various power tools e.g. grinders and



drills, and also specialist tools such as stud extractors, taps and dies.

In 1990, together with a small group of students, I formed an Automobile Society: initially its aims were classic car appreciation and restoration. In 1992, by which time I had 3 Heralds and 1 Volvo, Autosoc meetings were held on Saturday mornings from 10.30 until 1pm, and had become more focused on practical activities. I then decided to convert one of the Heralds into a teaching car: the roof, windows and half of the body were removed – all work was done by boys – and various parts of the car (which was now a rolling chassis) were colour coded: yellow = brakes, red = chassis, green = transmission, blue = suspension etc. When its rear was raised on axle stands it became possible to give driving lessons to children, who could watch the propellor shaft spin around rapidly as they increased the speed and then see all motion cease as they applied the brakes. New door panels and chassis repairs, using a MIG welder, were undertaken successfully to a high standard by pupils.

Gradually the reputation of Autosoc grew – more students joined, 2 more Heralds (donations) were constructively dismantled, and more junk was stored. In 2001 Mr Paul Aston (ex Royal Navy mechanical engineer) joined the staff of Highgate School. Within a few months he started helping on Saturday mornings and so the level of expertise grew, numbers of car enthusiasts grew and above all, new friends were being made. The highlight of every meeting was tea and cakes: held with great ceremony at 12.30.

{ If Man made it,
Man can fix it }

Working within the school garage we were able to create our own workshop which became a veritable Aladdin's cave of weird and wonderful mechanical/electrical automotive components and tools. They were stored in a recycled chemistry dept. storage system, and a serviceable workbench was made from an old boarding house door. The Autosoc motto was coined: "If Man made it, Man can fix it." And fix it they did: pupils restored and repaired carburettors, rusty wheel discs, dynamos, corroded wheel arches and brake cylinders etc. As teachers we were always amazed at their great enthusiasm for undertaking practical assignments, even those of the simplest nature e.g. polishing a piece of copper pipe. Not to mention

more serious jobs such as dismantling an engine to inspect the damage which had been caused by neglect. Eight years ago, due to popular demand, we started holding Wednesday afternoon sessions from 4.30 – 6pm. We have been overwhelmed by the numbers of pupils attending – up to 25 at a time. Even more recently, together with Nina Schoeneweiss (another colleague – mechanical engineer/metallurgist), we have been holding lunchtime sessions for year 8 girls. How they have enjoyed dismantling, cleaning and painting automotive components!

I decided recently to remove one of my junk cars from the streets of London and drive it to Poland where we have a family garage and where we could make use of a car during holiday visits. From junk in London, it would become an object of great fascination in Poland. The car chosen was maroon in colour, with an original factory fitted radio and antenna (very rare) and excellent original carpets, also very rare. I had been given the car by a nice lady in Milton Keynes 11 years ago ("I used the car regularly until 5 years ago, but now I need a faster car and I have a small child, so I have regrettably decided to give it away to a good home."). The car had an original engine with 55,000 miles on the clock, and with some basic servicing and anti-corrosion treatment, was shortly on the road.

My wife used it regularly for 5 years, but then changed to another Herald with a sunroof. [I had bought this one for £100 "for scrap" from a young lady in Clapham since there was too much corrosion on it and on 26th May 1999, a garage mechanic had reported that: "the clutch ass'y may require replacement as the clutch release bearing looks like the carbon has worn off the surface."]. During its use, the maroon Herald had done some 25,000 miles, but during the last 5 years it had only been used occasionally. Two years ago I detected a mysterious mechanical fault: the car occasionally jumped out of 1st gear. I also noticed an occasional ineffectiveness of the clutch pedal – this I remedied by changing the clutch slave cylinder seal and bleeding the system thoroughly. The repair seemed to work and was tested by an amateur mechanic friend of mine to our mutual satisfaction. When I drove the car briefly last year however, on one occasion the engine cut out at traffic lights for no apparent reason. Furthermore the battery didn't seem to charge very well. These were intermittent faults however, and the car had otherwise performed faultlessly.



It was this car then, that I had decided to drive to Poland. I politely enquired of Paul whether he would accompany me on the trip. To my delight, he agreed. "It'll be a great adventure", he said, prophetic words indeed. My first opportunity to test the car occurred on Sunday July 3rd, just 8 days before our scheduled departure date. I drove it to Oxford for a three day conference – it drove smoothly, powerfully and consistently down the A40M. Even so, I was still troubled by the intermittent clutch problem from last year, since I noticed that engine revs dropped on dipping the clutch pedal when the car was stationary. It then occurred to me to check the crankshaft end float which, to my horror, turned out to be huge. The thrust washer had probably fallen out and this engine, even though it drove very well, was not going to make it to Poland.

My diagnosis was confirmed on the return journey – the clutch pedal offered no resistance when the car was on an uphill gradient – this would be explained by the crankshaft slipping backwards in the engine, due to its lack of a thrust washer. On Tuesday evening, just before Speech day, I told Paul that some serious work had to be undertaken in the two days before our departure, which we had free.

On Friday we carried out provisional repairs using components from another engine, replacing all crankshaft big end bearings and main bearings with new ones, filling the gearbox, differential unit and engine with fresh oils, and testing the car. It performed well over 30 miles and confidence was re-established. On



Saturday I fitted a new exhaust system, and washed and polished the car. It looked beautiful, and was ready to go.

On Monday however, just prior to our departure and going up a steep hill, I noticed the smell of clutch burning i.e. a possible clutch failure – just my luck, I thought – another possible major repair, on the day of our departure! Nevertheless, we had a boot full of goodies: tools, sundries and accessories, and even a new spare clutch. So the decision was made to proceed. Immediately after I had given a lecture to an audience of schoolchildren (which included an explanation of how a car works), we left from Highgate School at 3pm, and drove towards the Blackwall Tunnel.

We stood in heavy traffic for half an hour, and the car performed well. However, as we were half way through the tunnel, I heard a distinct metallic crunch from the bell housing – a sure sign that something serious was amiss. Although the car continued to drive well, I was convinced that we were not going to go much further. In his wonderfully optimistic manner however, Paul suggested that maybe this was something completely insignificant? 36 years' experience of driving these cars told me otherwise – with a heavy feeling in my heart I decided to pull off at the first motorway services, which were about 30 miles down the M2 in Rainham.

{ It's all part of the adventure, we'll fix it! }

I was profusely apologetic to Paul, whom I was much looking forward to showing the beautiful Polish highlands. "That's no trouble at all Andrew", he replied cheerfully, "it's all part of the adventure, we'll fix it!" Brave but nevertheless naïve

words, I thought. It was a beautiful clear evening with plenty of space and excellent lighting, so I decided that we would attempt a clutch change: there we were in a motorway service area, with the car in pieces, trying to change the clutch. As I pulled off the bell housing (it takes about 30 minutes to disconnect it from the engine - there are 21 nuts/bolts to undo while lying under/in the car), I noticed that the clutch had indeed completely worn out, not only that, but our provisional thrust washer repair had also failed so we could not possibly proceed; dead engine – really dead this time! Just to emphasize the finality of our situation, I had also noticed that one of our (new) tyres had gone flat. My heart almost came out of my mouth and my intestines rumbled ominously: "I'm terribly sorry Paul; I just can't believe this..." "Not to worry", came back the cheerful reply, "We shall fix it!"

There was now only one hope of getting to Poland – install a new engine. In normal circumstances, a new (reconditioned) engine would cost about £1300, fitting it would cost about £500, and the whole operation would take at least a week to organise. In our situation however, time and money were of the essence – we only had one week in total, and I did not have the budget or inclination to authorise such a repair. We did however have two trump cards: our motto: "If Man made it, Man can fix it." and more importantly, another engine. Admittedly it was an engine of unknown provenance which had been standing in the garage for 15 years, but this engine had had the benefit of our third and most vital trump card: two pupils from Highgate School - David Ooi and Seshie Azorliadey.

As part of an Autosoc project this year, they had done the following work on this engine – checked that the crankshaft



end float was about 4 thou (well within acceptable limits), diagnosed (using a compression tester) a blown head gasket between cylinders 2 and 3, removed and decoked the cylinder head, reground the valves, installed a new head gasket, having torqued down the cylinder head to specified settings they set the valve timing, re-checked cylinder compression and fitted a new thermostat, temperature sensor and exhaust manifold and rocker cover gaskets. Furthermore they had degreased the engine and painted it. Now their time had come. Accordingly I summoned the Recovery Service (which is free for Herald owners and which comes with fully comprehensive insurance for 4 cars for £327 annually), which turned up within half an hour. Brilliant quality of service – we were home at midnight.

My family, who are not accustomed to mechanical failures, accepted with disbelief that we had come home, and with even greater disbelief that we were going anywhere at all the next day. At 7am on Tuesday morning, Paul and I were back in the garage. We started by lifting out the dead engine. Before installing the "new" engine we decided to change all the main and big end bearings. This was achieved by using the ones which we had put onto the (now) dead engine. **(Lucky they were the right size then – Ed)** When the new bearings had been installed, the engine was hoisted into position, and gently lowered onto two new engine mounts. The new clutch was installed, all transmission components were carefully reassembled, and by 5pm we had recorded our first





success – the engine fired up at the first attempt and ran smoothly. During the next two hours, various adjustments were made, and at 7pm I rang home to inform my wife that we were ready to go. Even though she had just returned from another busy day at the hospital, she displayed remarkable patience, understanding and impartiality to her husband's caprices with old "bangers", which "should have been scrapped decades ago". She served us a light supper and made the wise suggestion that we should leave on a 6am ferry, rather than proceed immediately.

{ We were now testing an engine which had been built by two schoolboys }

At 3.30am on Wednesday 13th July, the "adventure" finally began – but with a slightly different profile to our original plan: we were now testing an engine which had been built by two schoolboys, to see if it could get us to Poland. In a nutshell, the answer was: yes. Apart from an irritating tendency to overheat (caused by the fuel mixture being too lean, as we discovered after we had arrived), and a not insignificant oil leak (we used 5 pints) on

the 1150 mile drive, 2 navigational errors and a lost hubcap and trim, we arrived in Kościelisko, having visited an extraordinary semi-derelict steam engine museum in Chabówka, at midday on Thursday 14th July. Fuel wise, we had averaged an incredible 49.5 miles to the gallon. Our first port of call was at no. 334 Nędzówka, to see Hania Kierzyk for tea. She was delighted to see us (unannounced) as indeed she had been when I arrived at her house at 10pm on December 27th 1977, when I first came to Poland by Triumph Herald with my friend Janusz Pietraszewsk – mission accomplished!

This was only made possible through the companionship of my extraordinary friend and colleague Paul Aston, whose good nature, loyalty, engineering skills, reliability and willingness to succeed are second to none and to our two young friends of similar qualities from Highgate School: David Ooi and Seshie Azorliadey. They have just received their A level results and are off to university to study engineering. Happy will be the universities to which they go and cleaner will be the streets of London!

