

Our 1800S - For Love, Not Money (Part I).



One look at the white Volvo P1800 outside a Café in Newtown and my fiance Jen's first choice of a Morris Minor for me to restore for her was gone. It took 3 months to find a suitable one for sale and another two months to get it to a reasonable price. At the end of November 1999, we brought home the 1963, English built, Swedish assembled, cow-horn bumpered 1800S (Chassis No. 7964). To my then minimal knowledge, it was in basically original condition with all trim present if not in tact. It was in rough condition with some body rust visible and a rather untidy repair to a structural member but was registered til April 2000.

Getting Acquainted

On the way home, after a couple of misfires, she just lost power and I pulled to the side of the road. A quick strip-down and rebuild of the SU carburettors plus the addition of an in-line fuel filter the next day saw the last of that problem but one sizeable issue arose when Jen first drove her new baby. Jen couldn't overcome the heavy return spring to engage reverse!

For the next five months we spent our weekends cruising around in the coolest of cars – either I drove, or engaged reverse when Jen drove. Over this time I accumulated the list of the various faults in our thirty-year-old classic.

The cabin was very hot through summer as well as being noisy and tending to inhale whatever fumes there were from the engine bay. The only gauges that worked were the fuel gauge and the inaccurate speedometer – who needed the revs, time, oil pressure or oil & water temp anyway? There was a clunking/groaning from the rear whenever we hit a bump although I could find nothing loose in the rear end. The electro-hydraulic overdrive did not operate and more critically nor did the radio. The dangerously worn out front carpet that caught heels was quickly replaced with some remnant carpet from someone's lounge room.

These things aside the 1800S was a joy to drive. While slow off the mark, on the expressway it came into its own. It cruised effortlessly at 110kph with plenty of legs for overtaking – it was fun watching the faces in far more modern cars as we glided past them. As far as the drive train was concerned, apart from a noisy gearbox & differential – she purred like a kitten.

Reality strikes

The fun stopped when our classic failed its registration check. Rust holes in the front guards was an easily repairable non-compliance but the cracked a-arm mounts on the front cross-member and the cracked rear strut towers required some more serious work (thus answering the question of the clunking rear end).

With our wedding in May, the 1800S went to the back of the garage to wait. I gave myself a target of two years (April 2002). Married life and catching up on two months work saw few spare nights or weekends to do much with the Volvo in July & August. Although it was during this time that I decided on a full restoration rather than just addressing the registration issues and Jen's problem with reverse.

At the time of the Sydney Olympics, the 1800 came back in the picture as Jen had extended work hours & I worked from home. Within a month, it was completely stripped and I now had a very cramped garage, shoe boxes with lots of individually tagged zip-loc bags and a CD-ROM full of photos of what came from where.

It was now that I got a clearer picture of the rust problem, the parts required and the scope of work to be done. Rust was visibly present in the left front chassis rail (poorly repaired), the cross bar under the radiator, battery box, front guards (both front seals & lower rear), door sills, doors, rear wheel

arches, beaver tail, boot lip and headlight, indicator & tail-light inserts. The body had a ding in the nose, a crease in the front drivers guard and a number of dents in the back end. The paintwork was crazed on the bonnet & guards, non-existent in the fuel flap and in all there were four different tones of white. The interior needed complete re-upholstering and the majority of the rubber seals fell apart on removal. All the brightwork needed rechroming and some needed repair/replacement. The mechanicals needed the nearly forty years of build-up removed before they could be stripped & rebuilt.

Basically the job again stopped for the best part of eight months. I had been given control of a new project at work that took too much of my time. It was also probably just as much the size of the task that put me off going near the rear of the garage very often.

Back in earnest

The eight months were not completely wasted. A trip to Europe had found a supplier whom I made some purchases from including the most used resource for the restoration – a CD-ROM copy of the original Volvo Parts & Service manual. The internet was the other crucial resource – the Yahoo e-groups “1800 List”, eBay & two more suppliers in particular. By June 2001, I knew more about the P1800 & 1800S than I knew about any other car and I had made numerous purchases from around the world. More importantly, we had also paid off our wedding & honeymoon. I had ten months left of my promised two year project.

The Bodywork

The body was the biggest task to get started and I knew I did not have the time, skills or equipment to cut, weld & beat the body into shape. Three weeks of visiting panel beaters, body shops & restorers then checking references led to a chassis repair specialist in the North West of Sydney. Front & rear rolling stock was returned along with doors, bonnet & boot and the shell was trailered to its home for the next four months (as a monthly budget applied).

First was the chemical strip. It left a truly naked shell and a startling view of the holes left by the now killed rust. In addition it uncovered previous other body repairs: a deep gouge to the right rear quarter panel, a substantial impact to the rear and a previous rust repair to the LH door sill. I had become aware of this when I had great difficulty removing the rear wiring loom which

passes through this sill - the sill had been re-welded with the wiring loom still inside! The outer sheath and insulation had been melted into a block of plastic in the middle of the sill, yet surprisingly everything in the rear end still worked!



With the body fully stripped, I was not happy leaving the untidy looking repairs to the LH chassis rail. Once the repairs had been ground off, intuition to remove it proved correct as forward of the cross member was merely very fine Swiss cheese.



Having gone this far, there was only one way forward. Every hint of rust was cut out. Replacement panels were purchased where available (guard sections, sills, wheel arches, rear ¼ panels & indicator inserts) otherwise hand beaten. Panel beating the boot proved one of the more time consuming tasks it was so out of shape.

Once the body was rust free & fairly straight it was primed and the engine bay, interior & boot were painted in the new colour of Volvo Pure Silver Metallic. To protect the primer from absorbing greasy handprints I also had

the exterior given a first coat. In mid-November the 1800 came back home for me to start work mechanically.

Other sub-contracted jobs

While the body was away, various other items received professional attention as well. The two piece dash was badly cracked so it was given to Department of Interior at Carlton who did a fantastic job for an excellent price. The same can be said for Classic Wiring in Melbourne who refurbished the main wiring loom and replaced the melted rear. The SU carburettors got the full treatment at Midel of Lakemba whose high quality finish made me reconsider the rest of the engine bay. The differential was reconditioned and all seals & bearings replaced in the rear end. After sand blasting the fuel tank there was very little left of the rusted out bottom, so a new base was rolled, welded in and pressure tested.

All instruments were stripped & rebuilt by Olympic Instruments of Gordon, again for a very reasonable price. I had purchased a spare tacho & fuel gauge on eBay for spare parts. As it turned out, technician had worked on the speedometer back in 1967 as attested by his service tag!

The "brightwork" went to a three of electroplaters depending on the size and work required. Each had their own mishaps and in hindsight the chromework has been the most painful part of this project. Parts were badly repaired, damaged, misplaced, poorly finished and in one case DISSOLVED! I searched the internet & chat rooms of the world to find a replacement for that piece which saw me drive overnight from Paris to 100km North of Amsterdam and then back again – the benefit being I slept the whole trip back to Sydney. I am still awaiting the return of my grille surround that was first shipped off back in July 2001!

The interior of the 1800S was original but badly in need of renewal and this work was shared by two suppliers – both referrals. Restor-a-Dash of Revesby were recommended for their interior panelwork, particularly as they had access to a Volvo stamp for the door trims. While the quality of most of the work eventually received was very good and the prices reasonable, the number of phonecalls and visits over a five month period ensured that I would never recommend them. The promised turn-around was two weeks. The seat upholsterer whom Restor-a-Dash recommended was the totally opposite experience, with one phone call to advise he was delayed a week and the second to say all was ready. J.P.'s Trimmers next door to Restor-a-

Dash were excellent and will also be custom making the carpet when the car is ready.

Mechanicals

The engine was running 10psi down on Cylinder #4, the head gasket was leaking oil and the head was still running unleaded valve seats. Given everything else was being stripped, I sent it to the re-conditioner for machining, hardened seats, rings bearings. On return of the short motor, it got a new cam & lifters for the badly worn ones, and new water pump and thermostats for the rusted out items. At the same time the fuel pump, alternator (non-original), distributor were stripped, cleaned & reconditioned. To make it pretty it got a new coat of fire engine red, polished cam gear cover & thermostat housing, chromed rocker cover and powder coated fan. Re-assembled of the motor included with all new seals, gaskets & bolts of course.

Next in line was the gearbox & overdrive. Having not touched gearbox before, I avoided this task for about a month but eventually got into it. On inspection after disassembly, the gearshift extension lever was found to be deformed which probably didn't help the gear change either. The gearbox innards seemed reasonable but got new seals & bearings. The troublesome reverse spring was replaced with a lower spring constant as well as straightening the extension shaft. *(One error was refitting the loose laygear on its shaft which had a sleeve inserted from previous bearing failure. I now accept I will have to remove the gearbox again to correct this novices error.)*

The overdrive proved much simpler than expected. The contacts in the OD solenoid had long since separated from the solenoid body. A quick visit to the technicians at work located some nice 24k gold contacts (severe overkill) which quickly solenoid clicking away happily. Mechanically, the friction plates and surfaces were excellent with all teeth cut and bearings spinning freely. The only problem was all the seals had perished so no hydraulic pressure could be held. Again easily fixed with new o-rings and some home made gaskets.

A clutch system saw the main clutch cylinder stripped and rebuilt along with the slave cylinder down on the bellhousing. A new clutch playte & pressure plate were meant to finish the job but somehow the stroke of the slave cylinder and the new pressure plate of bearing did not go together poer

design. A temporary bracket gained the correct position for the cylinder to actuate the clutch. *(Another job yet to be corrected).*



Reassembly of the drive train was a red-letter day as was the following weekend when with the help of my mate Phil, the drivetrain was re-acquainted with the chassis. Another week saw the plumbing & wiring reconnected and the overdrive reconnected with the differential via new universals. Nearly two years to day after it was parked, the 1800S sparked to life again.

The brakes have only received partial attention so far. The two brake cylinders - reservoir & booster (aftermarket) - were stripped & rebuilt but I'm not 100% sure that the bores are sealing. The aftermarket booster has also been rebuilt and prettied with a coat of paint. Brake lines were flushed, scrubbed externally & painted, with some of the untidier modifications re-routed. All wheel cylinders were rebuilt with drums & disks machined and new pads all around. As yet firm, one pump brakes have not been achieved - so more work remains here.

With the beastly now mobile with a degree of braking power, the 1800S again left our garage on a trailer for the paint-shop.

The Painfully Long Wait for Paint

From the start of May til the end of July twice-weekly trips to visit slowly pushed the body preparation along. The paint finally hit the body at the start of August in four coats of colour and five coats of clear. The finished job was close to perfect. As I told Peter the paint-shop owner - "well worth the money but not worth the wait".



Unfortunately, that wait has been made even more painful with a work emergency requiring me to head overseas for nearly a month only two days after the 1800 came home. The emergency was the repair of a submarine cable off Singapore that involved a great deal of time sitting around on the ship waiting for things to happen. The upside was that it proved the perfect opportunity to start detailing the re-birth of 1800S #7964.

Still to come

Now that I'm back home, the re-assembly will start in earnest. The exterior will get all new or re-chromed trim, a new front windscreen & all new light lenses. The interior will have its sound & heat insulation upgrade completed then in with the all newly upholstered seats & trims and new carpet. The steering wheel has been refurbished and there are all new rubbers for the window, door and body seals. The polished period alloys (courtesy of a club member) will go on for daily driving. Also a CD player & concealed stacker & speakers will be concessions to the modern world.

Then after a couple of runs around the block, tune the SU's, sort the brakes and maybe pull that darned gearbox to fix that layshaft. Somewhere in here we might also squeeze a stainless exhaust and a serious alarm system. Then off for registration and those "1800S" plates that have been in storage so long.

The Target

Hopefully the next couple of months will see the completion of this tale less than six month past the original Project deadline – not a bad result given the various interferences. Jen will finally have her car & we will get to take our new toy to the drive-in. If we make it, just let's not talk about the budget!