Then came SE492 a triple 492cc. Registration 2968 UR.

The idea from Malcolm Mc Kay to re enact the 1958 Liege Bresica Liege Rally for cars under 500cc in 2008 had already lit the fuse , and with that in mind the B105 was being considered, Although at 700cc car, it would need a special category made up for it but would still be eligible as a Berkeley.
But now to find an authentic 492cc car, was a must have , given the state it was in. totally in parts and was found very late in the day. The date for the LBL rally was already set for June 2008 start. -----This was now the challenge.

June 2007 saw my SE492 collected up, ready to leave for home.



Engine is in the wheel barrow. Other bits came loose.



On reflection

At home I had to wonder what I had done, this was going to be a huge job as so much was missing or damaged. Even the rear end from the bits I collected had come off another car , its seems it had been swapped for another one , one with most of the GRP cut out of it , prep for a rear engined car perhaps , who knows but in a mess none the less.

A bit of detective work led me to the Hertfordshire archives to find 2968 UR was first registered by a Mr R D Pringle the Retreat Elm Green Wareside—as REBUILT.

Mid December 1961—the actual date not recorded but those records in front and behind were 16 Dec and 22 December respectively.

The Rebuilt bit ,was later to be proven , with the discovery of very poorly converted Steering and dash under tray , from LHD to RHD, the fuel pipe lines and brake pipe lines , what remained of them , were also running up left side . Plenty of evidence of wear in the hand brake cable hole, created by the cable sawing into it, also on the left hand side. It had obviously seen some use as a Left Hander.

This further confirmed that this had indeed been an export car – perhaps one of the many returned from USA under warranty. Many had engine faults and on return were stripped out of good bits at the factory, the remaining parts and sub assemblies left around the factory being sold off at the closure sale in 1961 perhaps.

Seems like Mr RD Pringle was a bit of a mechanic, who perhaps bought up these bits from the factory closing down sale and made himself a NEW CAR.

Cut out Rear End as found - For rear an engined car perhaps!



And the bulbous rear end had a football size hole in it for the indicator hole

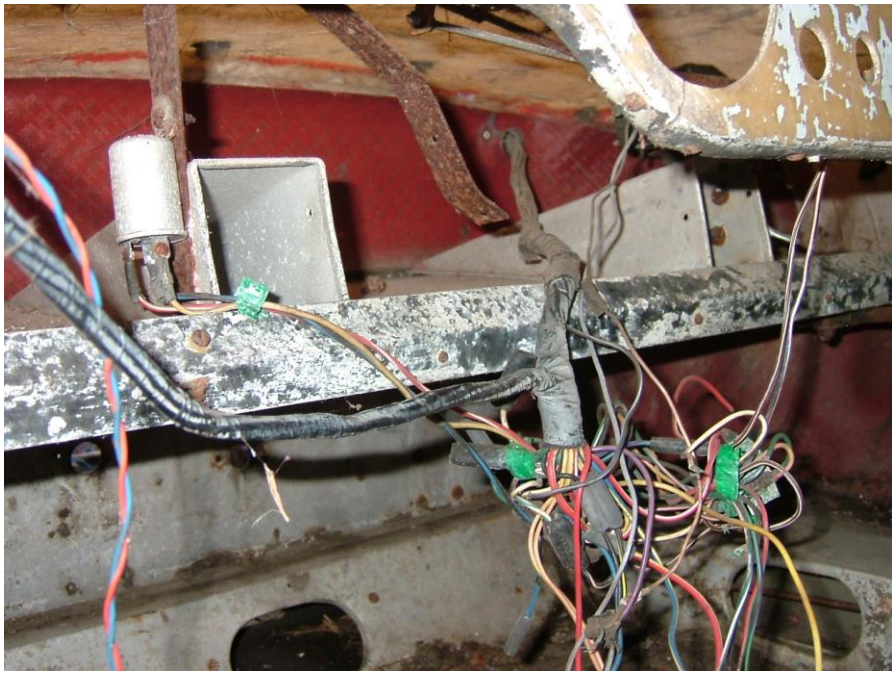


But it does have a Hard Top, thank goodness. But no this is from a T60 hard top. That had the front cross member torn out!

The rare and unique to SE492 / B95 /105 Double channel chrome surround Windscreen frame is missing.



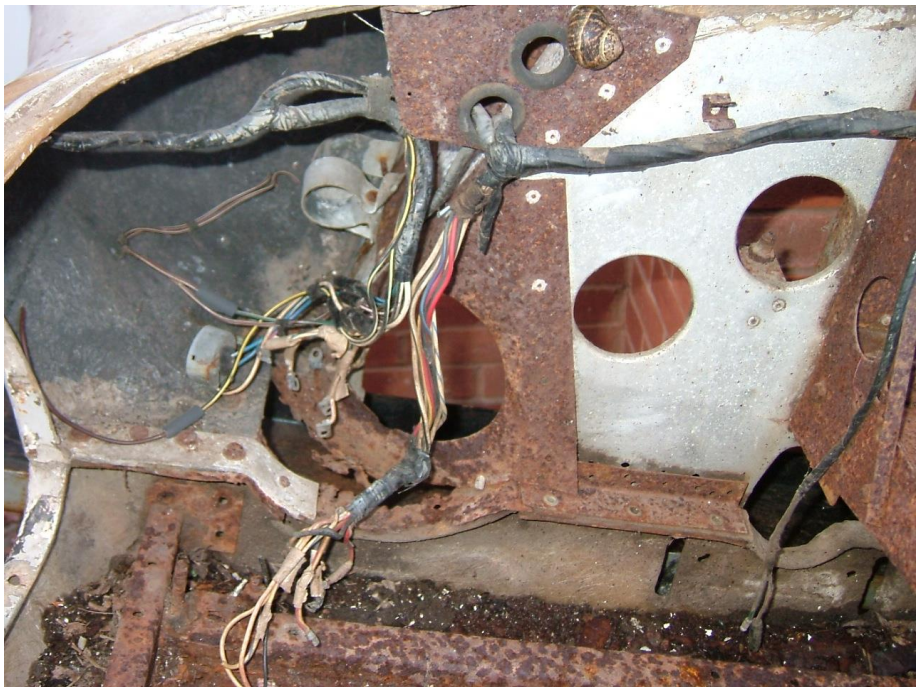
Mr Pringles modified parcel tray with the added on Right hand drive hand steering tunnel



The Serial Number plate Se492 Chassis 266 Engine 9286 was on the left hand side**,** most definitely a factory LHD car.
Brake pipes remains are on the Left hand drive side.
Attached to rear "scrap "cross member



The engine tray and all steel parts in the engine bay were scrap. Rusted so thin, only good for pattern.



The front cross member and inner wings were scrap condition.



And so the work started.
First finding the space in the shed and setting up the stand to get the punt onto.
I used an old bed frame and some long 10 x 2 timbers.
Once up on it and levelled out the punt was stripped of metal and scrubbed and cleaned up.
With the punt cleaning up done, the extent of grp work was easy to see, so with those punt grp repairs under way, over in the vice I started on a series of small projects.
First stripping out the rear swing axles, drums and making good with new brake shoes, bearings and brake cylinder seals, these cylinders are always a fight but with heat and a grease gun converted to screw into them, had them in pieces, and with out breaking the casting.
New copper brake pipes were made, this time routed as a RHD car.
The rear cross members and stiffeners that are on the sides of the punt were all rusted out, so all was removed and new steel ones folded up by the local fabricators, they all needed to be cut, drilled and made to fit, I just copied the hole positions from the rusty ones .
I was also careful to ensured I kept the hole positions in the grp as those repairs were being made.
The pivot pillars that the A frames attach to the punt floor were rusted on the bottom flanges, perhaps where they sat in a puddle of water for years.
The Metalastic bushes still good enough to keep, so repairs to the flanges were all that was needed.

It's in the shed, sat on an old bed frame and some long 10 x 2 timbers



Punt is almost done now, but still missing is the lower suspension tray



Attention was given to the rusted front engine bearers, the new top hat section metal came from Pete Tilling and with that I welded and drilled to make a new one, copying the rusty original one.

Engine bearers Top Hat section metal from Pete Tilling

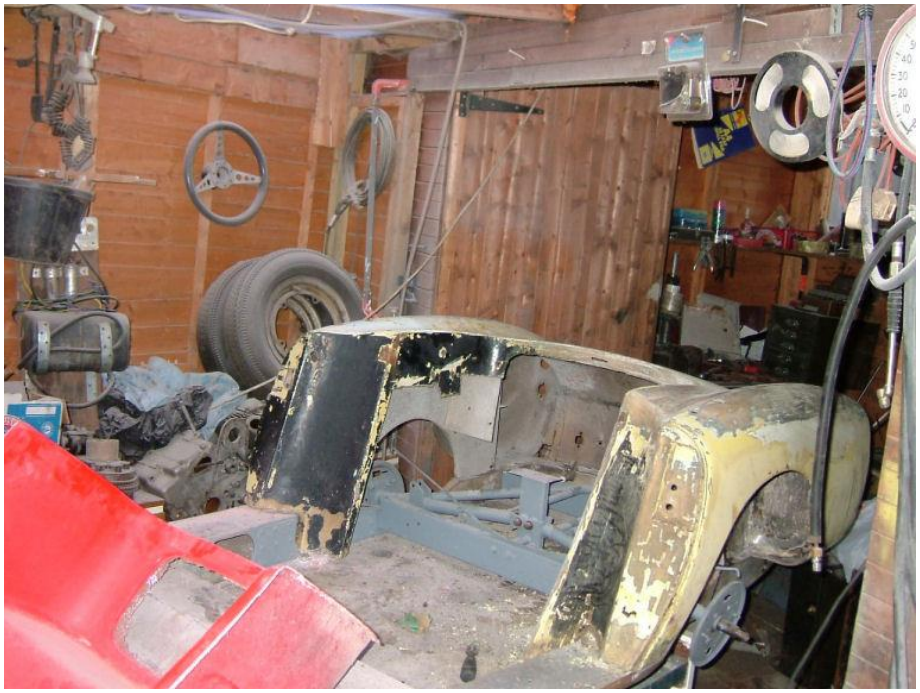


Cross members and stiffeners



The rear end on this car was a project on its own, it was not original to the car, that said, I was lucky to find BEC had in store a mould for that “cut out hole bit ” dickey seat area, that was made for an early car, these are different in so much as they don’t have a grp flange to connect to the punt floor but sit an a five inch tall alloy cross member , different in deed , but was good enough and I could modify it to suit. Some weeks later I had the fix made, modified and grafted back in.

The HOLE



The Hole, the Red Fix, and Blue Mould it came from



Modified and grafted in



Still on the rear end I needed to find a rear fuel tank, nothing came with the car, although I did have a B105 tank, rusted with the bottom cut out. But it had all the detail and dimension's needed to fabricate a new one.

The SE492's later developed into the B105, so a lot of parts are common

The tank was made for me by a specialist fabricator, my welding is not even close to what they can do, and after welding I asked if they had tested it for leaks. I got the indigent reply of, No, why should I, I just welded it! , he was so confident in his workmanship.

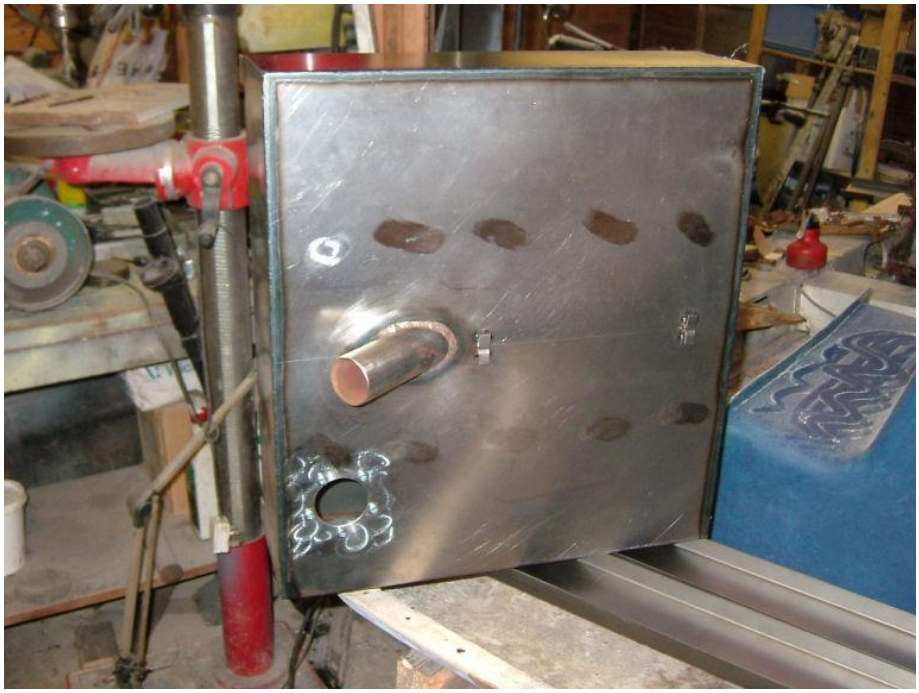
I did test it later and true enough, no leaks any where. Excellent work.

This was later fitted up with a 5 stud sender unit. Found on E bay , one from India came with gauge for about £20 , I just had to have something that might be accurate (I was planning to drive to Italy after all) , that had to be better than my home repaired efforts.

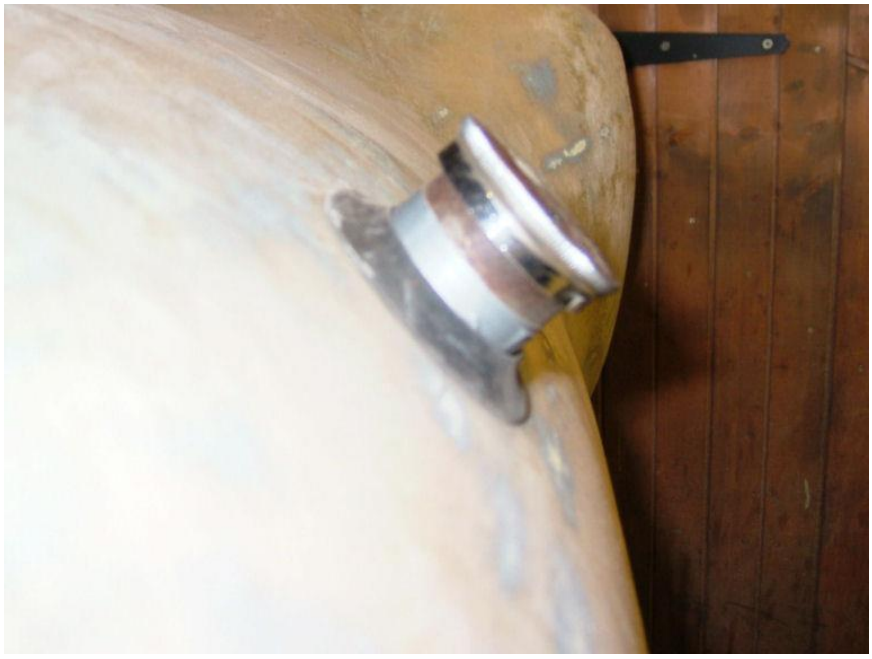
It was a real battle to get the home made tank brackets, the tank's filler neck and the hole in the rear grp body to all line up, you really do need four foot long arms, be double jointed and have extra long fingers.

Another reason you often see a hole cut into the punt floor just in front of the rear number plate, covered with a screwed on plate.

New Rear Petrol tank



Neat fuel filler neck now, with new grommet



In between jobs, and if I get stuck for some thing or other, I would start another small project, like making the missing front engine mount brackets, repair the pedal box, repair worn holes in the top and bottom wish bones, any thing that could be started and finished quickly, with materials to hand, it all adds up to getting the car restored. Prop shafts were interesting; I ended up with a collection of at least four lengths, some from twin engine cars some triple engine cars and some B105

What length prop shaft do I want?



Small projects that can be sorted quickly



Soon enough the next big project, the front end, was ready to be started.

The front inner wings were torn and split , a common failure, these have to be cut out of the front end body, and these also carry the suspensions top cross member and the support channels, that the shock absorber under the wing are anchored into.

So it's a worry that the suspension geometry will get lost.

I guess the factory will have had jigs made for this. I don't.

Once the steel parts are removed, drilling rivets out and undoing lots of small nuts and bolts that have rusted together, sounds so easy, its not.

But once gone the Alloy inner wings can be cut out, my preferred tool is a small disc cutter followed by a wood working hammer and chistle.

Horrid job, but eventually you get it out.

Leave some grp upstanding in places as references to show where it all fitted, and as a guide for when you have to bond it all back in again.

Bent and bashed to shape in my 4 inch vice



Not pretty, but then, it is only the inner wing.



The hole drilled around the top edges, replicating the original slots are for winding tape into, a 1950's way of ensuring that the bonded joint did not slip out when shock load was applied.
All holes, bends and flange positions were just traced across from the original parts, those that carry the suspension parts are drilled with small holes, and this to allow for a correction, as parts get assembled and alignment is checked.

Bonded in the new inner wing and suspension channel



The inner wing aluminium material is left over from the T60 rebuild, the round flanges knocked up with heavy bar after cutting out with hole saw in the hand drill.

I had two long metal bars, 2 x ½ inch with Sharpe edges that I use in the vice, to grip, clamp, sandwich the sheet in, ready to bend it.

Bending is done with a heavy block of wood and a big hammer.

I found it better to have removed the parcel tray before attempting to bond the inner wings in and have it all sat upside down.

Once both inner wing sides are in I set about the parcel tray. This had been horrible converted, but was the original so good for pattern.

It is odd, but the parcel tray is different on passenger side to the driver's side.

I think that goes back to when the spare wheel was normally stowed on the parcel tray passenger side.

The difference is with the tray edge, to allow the heavy wheel to slide in, the edge is turned down, and on the driver's side to make room for the hand to work the umbrella handbrake, and it is turned up.

That will also stop the map or spare spark plugs from falling out.

Parcel tray and inner wings before cutting out



With parcel tray cut out it is also a good time to repair the internal hinge mounting points, these are mostly found split with bolt holes pulled out.

Parcel tray cut out



Internal hinge mounting holes in need repairs



With the front end grp repaired and the inner wings and parcel tray bonded back in and the rear body all back on the punt, work on getting the doors to fit was started.

Doors next, not as factory would have done



The factory put the front on first, then the doors and then the rear end

Parcel Tray bonded in



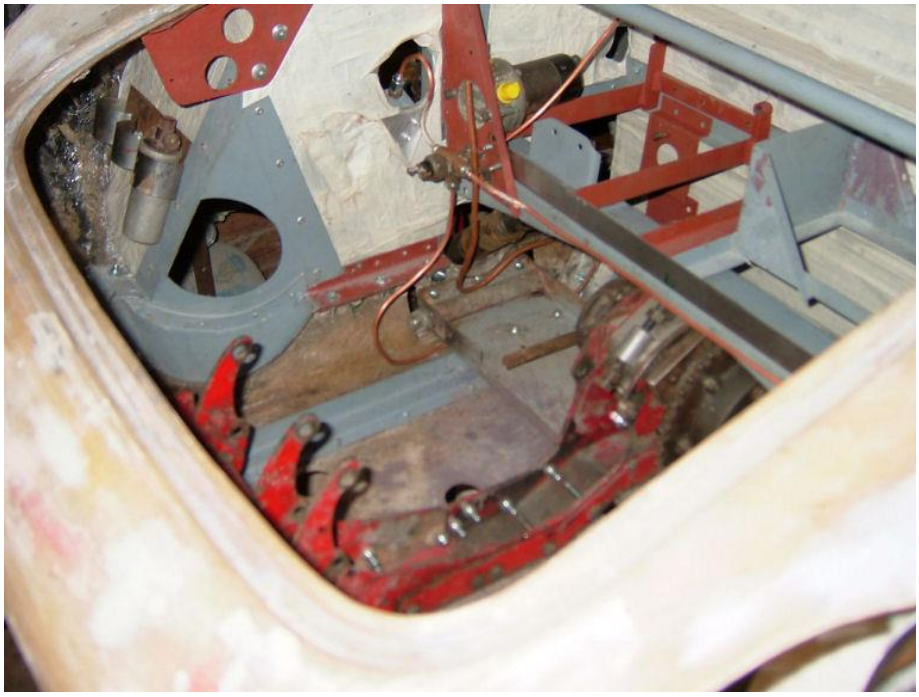
Engine bay

Next all the metal for the engine bay that had been made or cleaned and painted in under coat could go in,
The new alloy of the inner wings and the firewall is all masked up to protect from any over spray.
The fuel lines and brake lines have been connected.

A test fit for the Diff chain clearance was made, The Diff chain has to clear the top suspension tray, often they don't due to the punt floor repairs making it thicker and closing the gap.
At this point I was test fitting the engine cradle's two front and the rear mounts, with out the engine or gearbox, just the Diff in the cradle like this.

But with the engine and gearbox fully assembled, if it doesn't fit under, well that's a big problem.

Engine bay



Front Suspension Prop shafts Hubs



Prop shafts once I sorted the correct lengths, there are several; I fitted new Hardy Spicer joints.

Note
Fitting in the hand brake cables , the fuel line and the Hydraulic brake lines is always best done sooner than later , so much easier if the body it not on . Same goes for rear wiring loom and its access to the front, under the cill, if not put in place, make sure the route holes are clear , a problem I had due to the LH RH conversion and then not checking.

Hints and Tips

Should there ever be a need to remove the rear A frame axles and drums, it is possible to do so with the rear body still in place, although a fiddly. it can all come out the rear most cubby hole.

First job is to remove the rear tank, drain by removing the flex fuel hose, loosen the filler neck clip, the sender wire is undone and the two rear bolts and the two tank stud nuts along with the front bracket. The tank has to be lowered and then turned 90 degrees, as it is wider than deep, it is a squeeze but it will come out the cubby hole.

With the rear shock absorbers removed, Now there is another battle , the rear shocker top bolts , they have left no room up inside for much more than 1/8 turn of a spanner, just takes time.
No need for these to be murder tight when putting back if nylock nut is used.

With brakes hoses and handbrake rods disconnected, the metalastic bush pivot bolts can be removed and then by rotating the whole arm, the wide end of it can be walked out the cubby hole, followed by the drum.

As said before good if you have four foot long double jointed arms, especially if working alone.

Also be careful if once the tank is out and you wish to reach inside to the very back, it is possible to get your head and shoulders inside the cubby hole, I did and got stuck for some considerable time, feet waving in the air and panic does no good.