Vignale!

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ANDARD VANGUARD PHASE III REG # YTM 910

A Standard Vanguard Phase III, a Sportsman or a Six had been number 2 on my wish list of cars (TR4A number 1 and I have one of those) and had been looking for an affordable one for over 10 years, so when one came up on e bay with a starting price of £500 I had to have a "punt". As the car was only about 50 miles away in Keynsham I could have gone to have a look at it, but the images showed it to be in such a poor condition that I decided not to as I knew that seeing it in the "flesh" would put me off bidding. I therefore decided that if I could acquire the car and get it transported home for £1000 it would be a bargain so I entered a maximum bid of £875 and thought that I had no chance. Imagine my shock/horror/surprise then joy when the car became mine for the starting price! Things then improved, the seller (who was a great guy) was available for me to pick the car up on Sunday, my mate Chipmunk was available on the Sunday to help me (using his van & trailer for which he has a Severn toll TAG, so no transportation costs as Chipmunk owed me a few favours) and Ian Slaughter (who stores Chipmunk's trailer) could accommodate us picking up the trailer. So with all these "ducks in a row" Chipmunk and I drove to Keynsham on 11/01/2015 to pick the car up. The rear tyres were flat, but with a bit of air in them and help from the seller's family we pushed the car out of the garage and onto the trailer. One of the "upgrades" that I found on the car was that the gear box was help in place by a tow rope which entered a (large) hole in the floor and then tied to a piece of timber very ingenious!

Basically every bit of the car needs extensive work, floors, chassis legs, inner wings (front & rear) outer wings, rotten bonnet, front valance, inner and outer sills, the list is endless, but at the end of the day I have my two top dream cars and my wife, son & daughter think it is the best looking car they have seen!

12/01/2015

I spent an hour spraying maintenance fluid on the visible corroded areas of the top of the car, slackening the wheel nuts, very carefully raising the car up on axle stands so that all four

wheels were clear of the ground then removed the front O/S road wheel. I then placed a scissor jack under the gear box to take its weight so that the tow rope and wooden block that had been bearing the gear box weight could be removed at a later date for repairs. My plan is to attack one corner of the car at a time.

1 hour

15/01/2015

Today I managed to remove the front grill, indicators, side lights, bonnet latch and the bar that will eventually carry out its intended purpose of holding the gear box in place. I also managed to slacken some of the bolts that hold the O)/S front wing in position.

1.5 hours

1

26/01/2015

After finding that the bolts that hold the trailing edge of the front O/S wing were hidden behind an inner wing that had been fabricated from sheet steel and welded in place then covered in under-seal (which I then cut out) I was able to remove the bolts (they actually came out quite easily as the home made inner wing had done a good job of protecting them). I then found that the front lower section of the wing was bolted (with very small what may have once been self tappers – now very corroded) to the valance. I tried to remove the front bumper but all the bolts were rusted in solid so I gave them all a good soaking with penetrating oil and left them until the next time I have an opportunity to work on the car.

4.5 hours/month 2 hours

After my membership number came through from the Standard Club I was able to order the following parts – FRONT O/S WING, FRONT N/S WING, S/H VALANCE, S/H WINDSCREEN, S/H REAR LENSES, FRONT GRILL, S/H FRONT SIDE GRILLS, WINDSCREEN SEAL, ENSIGN BONNET. OUTER SILLS. Apart from the sills all these parts were “one off’s”. I also managed to procure a S/H boot lid through e-bay. I have now spent nearly 4 times more on parts than I paid for the car!

07/02/2015

The Standard Club spares secretary who lives in Lincolnshire was visiting his brother in Reading today so he very kindly took all the parts that I had ordered with him so that I had a much shorter journey to Reading to pick them up, top man Peter Foster!

08/02/2015

I was unable to remove all of the bolts holding the front O/S wing to the front valance and centre panel so I used a cutting disc to cut away the bolts (after first of all removing the front bumper and brackets). After scraping away the under seal (nearly 2 inches thick in some

places I found far more corrosion and rot than I had thought possible. There are even large holes in the bulkhead. If I hadn't bought the parts I may have been tempted to scrap the car or sell it on, may have, that is! The front O/S suspension turret is even rotted through!

2 hours

09/02/2015

I decided that I would attempt to repair the front bulkhead first and this required the dashboard to be removed to allow access for me to weld the inner panels. First of all I removed the instrument binnacle, disconnecting the gauges to allow this, the temperature gauge had the sender conduit seized in it so I had to release the gauge from the binnacle by removing its mounting screws (very fiddly with it all in place). I then found that the glove box was locked and that none of the keys I had would fit, so I had to drill the lock out.

1.5 hours

1

10/02/2015

I managed to remove the glove box (to find that it'd plastic frame was broken), steering column support bracket and the 4 small screws that hole the Dashboard top on the car main frame, the dashboard facia loosened up a bit but there are still hard to get at switches and mounting screws to access before I can assess whether the car is saveable, although from what I revealed today it looks even worse than I had feared at the last stage of inspection!

1.25 hours

11/02/2015

After working out how to remove the horn push assembly I moved onto finding the other small screws that were holding the dashboard assembly and managed to remove them. I was then able to remove the wiper, lights and choke knobs.

1.25 hours

12/02/2015

I found that the cables for the horn and indicators travelled the entire length of the steering column shaft and exited out through the steering box! With the bullet ends cut off I was able to undo the bottom coupling and withdraw the steering wheel, shaft and inner shaft. I then removed the front bench seat and front carpets and sound proofing. With these out of the way and a few more electrical and mechanical connections undone I was able to remove the dashboard and then the lower padded trims. Next I removed the heater box, heater motor, control box, fuse box, clutch and brake master cylinders, brake and clutch pedals, heater vent, wiper nut boxes and the cover for the plenum chamber. Every part I removed revealed

horrendous corrosion with both sides of the plenum chamber rotten through, is the car saveable? I don't know!

5 hours

13/02/2014

Today I cut out as much rot as I could from both sides of the plenum chamber. I then painted all areas with Jenolite rust converter then gave all the areas a coat of zinc rich primer. I managed to remove the top cover of the plenum chamber and rust treated the inside of the top of the plenum chamber/ wiper nut box locating areas after I had removed the wiper rack and nut boxes. I then started to cut out carboard templates for the many patches that are needed to repair the bulkhead. At this point I was still very dubious about being able to save the car.

5 hours

16/02/2015

Using my vice I managed to create quite a good repair patch for the O/S front of the inner sill to floor area, I then painted it with zinc rich primer.

0.5 hours

17/02/2015

After cleaning up the linkage for the front to rear connection of the handbrake cable I was able to remove the clevis pin then open up the bracket that holds the outer cable to the chassis leg. I was unable to separate the handbrake handle from the O/S inner wheel arch as the bolts were far too corroded and the panel started to break up as a "repair" by a previous owner had been effected within the wheel arch giving a double skin, I will remove the bracket by cutting away the original inner arch after I have removed the large repair patch. I then made up a repair patch in my vice for the 17 ½" length of rotten/missing inner sill to driver floor pan and painted the rear of the patch with zinc rich primer.

1.5 hours

20/02/2013

I started repairing the front inner sill with 2 patches; I then found that there should be a strengthener inside the sill which had rotted out completely the entire length leaving just ¼" still attached to the top of the sill cavity! I made a 21" long piece and welded it between the new inner sill repair patches and the outer sill to get some strength in that area. I then welded one of the patches I had previously to the inside of the bulkhead. Another disheartening day finding far more welding repairs to do, I should have scrapped it!

5 hours

21/02/2015

After making up a tool as described in the workshop manual I was able to remove the window winders and door lock handles, to remove the front door armrests I had to carefully use a hacksaw blade between the ends of the armrests and the door cards. The armrests are made of a plastic type material which is crumbling away and have already been “repaired” in the past. Two more unobtainable parts for me to repair!

1.5 hours

3

22/02/2015

After using a cutting disc to cut through the top of the O/S sill I was able to remove the sill to reveal the true horror that lurked inside, I then treated all the corrosion with Jenolite rust converter. I then made a repair patch for the passenger side inner plenum chamber/bulkhead, one for the centre of the engine bay and another two for the driver side, these were then painted with zinc primer.

2 hours

23/02/2015

I made up a new sill strengthener 8” by 58” (2 pieces of 8” X 29” welded together) and after painting them with zinc rich primer I welded them in place. The 8” dimension would give me an 1” to trim off when complete. I then made an inner sill 7” X 58” (again in 2 pieces), painted with zinc primer and welded them in place. I then offered up the outer sill and after much trimming and grinding I was able to obtain a decent fit. I then painted it with zinc primer and welded it to the strengthener. The excess from the strengthener was then cut off and the zinc primer painted to all the outer surfaces. It sound easy when writing it, but it took all day, I now have to figure out the best way of attaching the inner sill to the strengthener.

7 hours

Total 31 hours

27/02/2015

Using my angle grinder I cut away the 8 ½” X 7 ½” patch that a previous owner had welded (I use the term loosely) from the top of the O/S inner front wing/bulkhead. This revealed the rusty remains of the original panel where the handbrake mechanism is attached. I made a drawing of the handbrake mechanism mounting hole centres (as best as I could determine from this “floating” section then cut out the original section of the panel. I then made the section that needed repairing larger by cutting out the corroded surrounding metal. Next I cut away the corrosion in the inner wing side wall and A post then I turned my attention to the lower part of the inner wing/bulkhead and cut out the corrosion which need a 7” X 7 ½” repair patch. After making cardboard templates for the A post and lower bulkhead areas

(not enough sheet steel left for the top repair) I transferred the shapes to the sheet steel, cut them out, painted the rear faces with zinc primer then seam welded them in place. They were both then painted with zinc primer.

36 hours/month 2.5 hours

4

02/03/20015

Today I made and welded repair patches to the inside of the bulkhead completing the repairs for the inner wall of the plenum chamber. I also made a repair patch complete with drain pipes for the centre of the plenum chamber inside the engine bay. The welds were all ground back, coated with seam sealer and then all repairs were painted with zinc rich primer.

4 hours 03/03/2015

With the handbrake assembly on my bench I was able to release it from the part of the patched bulkhead which I had cut from the car. I then removed the cable and managed to get it moving after applying release oil. I was not able to un seize the operating handle mechanism though so I gave it a good application of release oil.

1 hour

04/03/2015

After closely examining the handbrake operating handle mechanism to see how it worked I was able to strip it down and un seize it, I then cleaned up the entire assembly and gave it a coat of Hammerite smooth black enamel.

0.75 hours

05/03/2015

As the sheet steel that I ordered had finally arrived I made a cardboard template for the 15” X 12” repair “patch” for the top of the OS bulkhead where the handbrake mechanism is mounted. I then transferred this shape to the sheet steel and cut it accordingly. The inner face was then painted with zinc phosphate red oxide paint and left to dry.

0.5 hours

5

06/03/2015

Decent progress was made on the car today, I seam welded the patch for the top of the OS bulkhead after first of all working out where the 4 holes for the handbrake mechanism should be and drilling them, I then made a backing plate for the handbrake mechanism for

extra strength. Next I made up repair patches for the bottom of the O/S bulkhead/A post panel and seam welded it in after cutting out the rusty section. Next to have the corrosion cut away and 2 small repair patches seam welded in place was the area under the front top of the O/S wing where the inner wing meets the scuttle. It was then the turn of the plenum chamber from inside the engine bay. I seam welded the old front panel that I had cut out with a thin cutting disc then made up a lower panel 24" X 3 ½" to join it to the bottom of the plenum chamber replacing the corroded steel that I had cut out previously. After giving all these areas a coat of zinc phosphate red oxide primer I unbolted the bonnet hinges and removed the bonnet to give me access to the O/S inner wing repairs that are needed.

5 ½ hours

09/03/2015

A long day spent cutting, grinding and welding, but at the end I had managed to repair the O/S inner wing where the bonnet attaches with "double skinn" repair patches, the front of the inner wing where the wing attaches, the bottom of the A post/bulkhead and blanked off the front of the O/S sill. I then offered up the front wing and devised a non standard method of bolting the bottom rear of the wing to the car. I then seam sealed and painted all the welds with zinc phosphate red oxide paint.

7.25 hours

10/03/2015

Although the O/S wing that I had bought was new old stock it was covered with surface rust so I rubbed the inside surface with wet or dry then applied a coat of Jenolite rust converter. I then turned my attention to removing 56 years of road dirt from the O/S inner wing with a rotary wire brush and a hand held wire brush. All surface rust was then given a coat of Jenolite rust converter. Jenolite is supposed to react within ten minutes and then the second coat should be applied, but it had only just started to react on both the wing and the inner wing so I left it for another day to apply the second coat.

1.5 hours

12/03/2015

Using my angle grinder I cut away the corroded end section of the chassis leg that runs across the underside of the driver floor pan, this left an 8 inch gap between the chassis and the inner sill where it attaches. I then cut away the remaining corroded areas of the driver floor pan and ground the head of the bolt that originally held the front sub frame to the chassis leg and also the end of the bolt with the nut still attached, I was then able to remove what was left of the part of the chassis leg to sub frame bracket.

1 hour

13/03/2013

I made a new chassis leg end by forming 2 pieces of sheet steel (9" long) and welding them together. This was then welded into place so that the chassis leg was fully repaired and once more joined to the inner sill. I then cut away the corroded areas of the rear and bottom of the sub frame and welded in repair patches. Working from inside the car which was made easy as there was no floor in this area I cut a slot in the chassis leg to line up with the end of the sub frame. Next I made up a spacer ¾" square hollow section bar to fit into the sub frame and passed a new bolt through the original mounting holes to hold it in place, this was then welded into the sub frame. Another piece of ¾" hollow section was then welded to the spacer and also into the chassis leg making a stronger than original joint.

3 hours

14/03/2014

The front O/S inner wing and the inside of the front O/S wing were given a coat of Hammerite smooth finish paint.

1 hour

16/03/2015

I patched up the driver foot pan using 2 steel patches seam welded in place, this took quite a while as one of the patches was large and quite an intricate shape. I welded the larger patch to the repaired chassis leg by drilling holes in the it and plug welding it from inside the car. As I couldn't remove the remnants of the accelerator pedal bracket from the floor pan I cut around it with my angle grinder then made up another repair patch and seam welded it in place. Next I turned my attention to finishing off the plenum chamber from the engine bay side. First of all I drilled a 15mm hole at the bottom of the chamber and using Araldite I fixed a piece of copper pipe into the hole to act as a larger drain than the 2 I had made previously. I then made a repair patch for the area of the plenum chamber where the heater connecting flange fits marking out the hole positions carefully then welding nuts to the back of the patch before seam welding it in place. With a bit of time left I turned my attention to cleaning the surface rust from the seal bracket that runs nearly the width of the engine bay above the plenum chamber and then treating it with rust converter. I then remembered that I had to make another repair to the front lower section of the front O/S sub frame,

Front o/s wing removed

Rust in o/s wing & Valance

Rust in lower front inner wing

Rusted through front o/s suspension turret

Front o/s inner wing near "A" post rot!

Corroded o/s "A" & Screen frame

N/S "A" frame & screen frame

corroded

Rotten inner planum wall

Viewed from n/s footwell

Bulkhead behind heater matrix rotten through

Corrosion right through both sides of plenum chamber

Heater cable setup & holed

bulkhead

O/S plenum chamber rotted through the 2 walls

Drivers side floorpan

Front of inner sill cut out

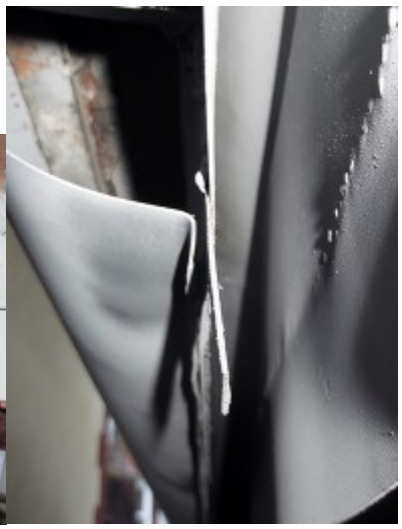
Hole in drivers footwell

Hole in drivers floorpan

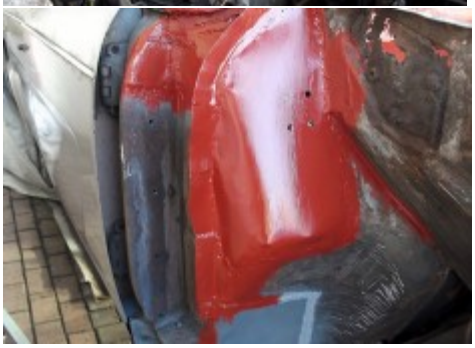
Inner sill made from sheet steel & welded inplace

O/S Sill welded in place

O/S sill viewed from underneath



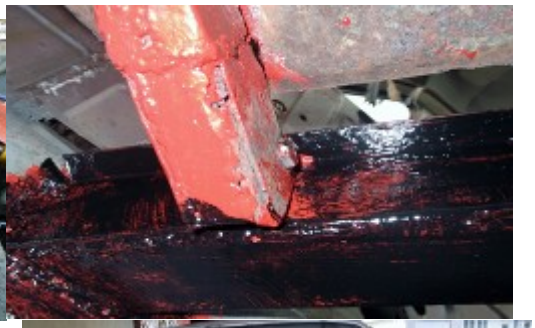


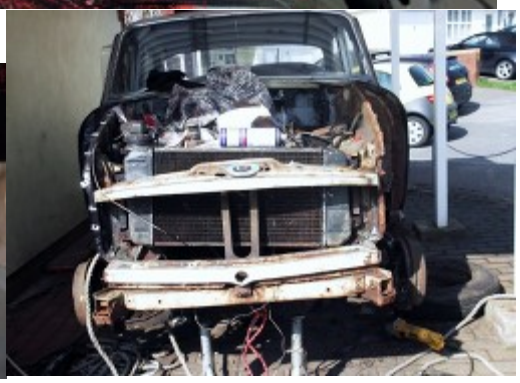


N/S inner wing

Engine bay plenum chamber welded

O/S Bulkhead repair



Front O/S chassis repair sections

Repaired front O/S chassis leg bolted to sub frame

Repaired O/S chassis leg welded in place

Both front wings removed

so after cutting out the corroded area with my angle grinder a repair patch was made and seam welded in place (all faces of the repair patches that would be inaccessible when welded in place had been painted with zinc weld through primer). Finally all the repair patches were given a good coat of Hammerite smooth finish paint.

5.25 hours

18/03/2015

After rubbing down the outside of the O/S front wing I gave it 2 coats of Jenolite rust converter.

0.75 hours

19/03/2015

Using new spire clips and bolts I attached the front O/S wing and after bolting it in as good a position as possible I drilled through the bottom holes into the angle bracket that I had previously welded to the lower bulkhead/A post then fitted spire clips and bolted the wing to the bracket, it looked really good. I then used my angle grinder to trim off the excess metal that I had purposely left at the front end of the inner sill and hammered it back on to the A post to form as neat a join as possible which will be welded hopefully the next day. I then removed the front wing.

1.5 hours

20/03/2015

I started the day by welding the join at the bottom of the O/S inner wing/A post and I then turned my attention to removing the front N/S wing. To do this I had to use my angle grinder to remove the large repair patches that a previous owner had welded over the fixing bolts. With this done I was pleased to find that the N/S was in better condition than the O/S had been. I then removed the remains of the front valance, the slam panel and the front panel that connects the two front chassis legs, this was achieved by a combination of undoing bolts that had previously had penetrating oil applied and grinding the heads off the bolts that were too corroded in place to be undone. Next it was the turn of the radiator, the 2 horns, the solenoid bracket, the windscreen washer bottle and the windscreen wiper motor to be removed. The engine bay faces of the inner wings were then degreased using Jizer and a stiff brush before being washed down with a pressure washer.

4 hours

Total 70.5 hours

23/03/2015

Repair patches were made up for the bonnet mounting point in the N/S inner wing (one for the outside and one for the inside) with holes drilled to allow the mounting bolts to pass through into the captive nuts, these were then painted with zinc rich primer and left to dry. The corrosion was then cut out of the front N/S chassis leg using my angle grinder. I then used Jenolite to convert the surface rust on the inner wing and N/S bulkhead and battery tray.

1.75 hours

24/03/2015

I removed the O/S track/tie arm complete with the worn track rod ends, the track rod ends were then removed and then cleaned up so that I could take them to the Resto show at the NEC in the hope that I could obtain “new” ones as they seem to be very hard to source. More repair patches were then made for the front N/S bulkhead and inner wing.

1.75 hours

27/03/2015

With a few hours to spend on the car I positioned the hinge mounting repair patches to either side of the N/S inner wing and seam welded them in place. A repair patch was then made up for the front N/S chassis leg and the inner wing in the area where it meets the chassis repair patch, these were coated with zinc rich primer then seam welded in place, I then turned my attention to the area where the front N/S bulkhead meets the front N/S A post and seam welded a pre made and painted repair patch in place.

As the bonnet that I had managed to procure was very rusty (but not holed) I placed it on a blanket and using a flap disc in my grinder I removed as much rust as possible before giving it 3 coats of Jenolite rust converter.

5 hours

30/03/2015

Today it was time to attack the N/S sill. I removed the outer sill with my angle grinder and found that there was about 75% of the stiffener left intact, however, I still had to remove it to gain access to fit the inner sill so I cut it off with my angle grinder. I then cut out the remains of the inner sill along with the N/S gear box mounting shaft support bracket. With these out of the way I found that the chassis leg and front sub frame ends were not as solid as they had looked so I cut them off with my angle grinder along with parts of the front passenger foot well. An inner sill and stiffener were then made by joining 2 pieces of 40 inch long by 6 inch sheet steel and welding them into place after first of all treating the remaining surfaces of the sill cavity with rust converter then painting the cavity and the inner sill and stiffener with zinc

phosphate paint. The inner sill and stiffener were extending far beyond the point of where they will be eventually cut for the sill closing ends. I trial fitted the outer sill to see just how many repairs I would have to make to the top of the sill/step, there were quite a few and there was virtually no metal left under the A post or the B/C post. To gain access to these areas I had to remove the N/S doors, but the Phillips headed countersunk screws would not budge even though they had been treated with penetrating oil on numerous previous occasions, my impact driver only loosened one screw and a heavy duty Phillips screwdriver that a friend had leant me that had a hex on the shaft for a spanner shattered when I tried to use it! I was thinking that I would have to drill the heads off the screws then weld nuts on the protruding stems and try to remove them with a socket, hoping that the heat from the welder would have broken the "seal". The N/S which on first examination had looked an easier fix than the O/S is proving to be a harder and longer job than the O/S.

52.5 hours/month 7 hours

01/04/2015

My friend lent me an even stronger Phillips headed screwdriver that was solid steel through the handle to facilitate hitting it with a hammer and had a hex shaft to facilitate a spanner."I've had this man and boy and it has never failed to remove Land Rover hinge screws" he said. It loosened one then shattered! That's 2 screw drivers I owe him! I then found amongst my tools a Kennedy professional screwdriver with the same impact proof handle and low and behold it did loosen the screws and it did not shatter! I had to use a combination of this screwdriver and an impact screwdriver bit in a ½" drive socket along with copious amounts of penetrating fluid, screwing the screws in and out, but at last all 4 hinges were off and the two N/S doors were removed allowing access for the repairs needed to the bottoms of the A, B & C posts and along the top of the sill!

2.5 hours

02/04/2015

I used my angle grinder to cut out some of the rot in the N/S tread plate/sill top, just taking small sections out at a time so that I will be able (hopefully) to replicate the formed areas by welding in small pieces of new metal gradually and shaping them to the next section of rotten steel before I cut that away.

0.25 hours

03/04/2015

Once again using cardboard I made templates for the 7 areas of the N/S tread plate/sill top, A, B & C post bottoms then replicated them onto sheet steel. These were then cut out and the various curves and angles were formed on them and the faces that would not be accessible painted with Hammerite rust killer and primer. All repair patches were then welded in place.

3.25 hours Total 92 hours

07/04/2015

To fit the N/S outer sill the doors had to be replaced to ensure that they would not foul on the sill top when closed. After using various shims I managed to get a better door fit than they were before I took them off, but they did foul the new outer sill, to address this, I will have to trim the lower part of the sill top/tread plate area right back and weld the sill on the underside.

1 .5 hours

08/04/2015

Using my angle grinder with a thin cutting disc I trimmed the lower part of the sill top/tread plate area back to a width of about ½" for the length of the sill top. Next I gave the outer face of the outer sill panel and the one side of the right angled sections that I had made up to join the inner sills to the strengthener 3 coats of zinc rich primer.

0.5 hours

09/04/2015

After attaching the front N/S wing with a few bolts I was able to ascertain that I needed to remove about 2mm from the front inner wing to facilitate a decent (but not perfect) wing/door gap. I marked where the front wing's trailing edge would be on the front N/S door so that I would be able to position the outer sill then I removed the front wing. I then gave the right angled sections that will join the outer sills to the inners sills 3 coats of zinc rich primer as well as the top "lip" of the outer sill in readiness for fitting

0.75 hours

10/04/2015

Using my metal punch I cut a row of holes each about ¾" apart along the N/S sill top/tread plate and the lower lip of the outer sill. With the outer sill clamped in position I plug welded the sill through the pre punched holes. I then punched holes again about ¾" apart along on one of the right angled strips that I had bought and cut it to a length of 66". Using my angle grinder with a cutting disc I then trimmed the excess steel of the strengthener so that it was flush with the bottom of the outer sill and then I cut all along the length of the inner sill so that it was 1 ½" less than the bottom of the outer sill. The right angle strip was then clamped in position flush with the strengthener/outer sill bottom edge and plug welded through the punched holes. I then had to join the inner sill to the right angle strip. The strongest way to do this I thought was to make up 1 ½" X 1" angle strips and weld them to the inner sill and the previously fitted 1 ¼" X 1 ¼" X 66" angle strips. I had to make up 8 lengths (4 per side) using a vice held folder as I didn't want to have to wait to have them made for me. With these made, I punched holes in the face that was to be welded to the outer sill/strengthener angle, painted them with zinc rich primer then plug welded them in place. I then seam welded the other face of the angle to the inner sill. Although I was by now very tired, I managed to grind down some of the welds and give them all a coat of zinc phosphate paint.

6 hours

Total 100.75 hours

13/04/2015

It was now the turn of the O/S sill to have the angled lengths welded to mate the outer sill/strengthener to the inner sill. As all the pieces had already been made up I was able to weld them all in place, weld the length of the floor to the inner sill and make a repair section and weld it to the N/S passenger floor pan. The O/S sill bottom and the N/S repair patch were then painted with zinc phosphate paint after the welds had been ground down.

6 hours

17/04/2015

With only about 3 hours available I thought I decided to try to make up new chassis repair sections for the end of the N/S chassis leg along with a copy of the fixing method for joining the front sub frame to it. I managed to do this and also had enough time to repair the front passenger footwell. After the welds were ground back all bare metal faces were painted with zinc phosphate paint.

3 .25 hours

22/04/2015

An hour and a quarter spent painting the bulkhead and inner wings with Hammerite paint.

1.25 hours

27/04/2015

It was now time to finish off the front of the N/S sill and to effect repairs around the bottom of the N/S front bulkhead and to trial fit the outer wing and weld an angle section in place to bolt the bottom of the wing to. This was a repetition of the O/S with many cardboard templates being cut and transferred onto sheet steel, all the patches were painted with zinc phosphate paint on the “blind” side. I also had to repair the badly corroded and very thin and flaky inner wing top. This took me most of the day but I still had time to grind back the welds, paint the inner wing with black Hammerite paint and give the inside face of the outer wing 2 coats of Jenolite rust converter. I also temporarily fitted the O/S outer wing to get it out of my garage.

7 hours Total 118.25 hours

01/05/2015

One of the upgrades that I want to make on the Vignale is fitting a narrow fan belt conversion kit (which are not available to buy as far as I know so I will have to machine some pulleys out of aluminium). I also intend to use a TR4A water pump which uses a different spindle so this will mean dispensing with the mechanical fan as on a Vignale the fan is bolted onto an extended water pump pulley and on the TR the fan is bolted to the crankshaft. I will therefore have to fit an electric cooling fan as well.

To remove the crankshaft pulley I first had to remove the starting handle cone which is screwed into the crankshaft. I removed the starter motor and using a pry bar I just about managed to lock the flywheel and reach the hex on the starting handle cone at the same time and unscrewed the cone. I then removed the bolts holding the crank pulley onto the mounting spigot. Next I had to remove the water pump and 56 years of rust and crud made this job take a bit longer than it should have. With the water pump in my vice I managed to remove the cotter pin which locks the pulley onto the water pump shaft and with relatively little effort with a puller the pulley came off. 1 .5 hours

06/05/2015

As the top of the suspension turrets on the front of the car need welding (the road springs look like they could push through the tops at any time due to corrosion) I removed the front N/S brake hub and vertical link enabling me to then remove the shock absorber and road spring. 1 hour

07/05/2015

Although the bolts and nuts were extremely corroded I was able to remove the top and bottom wishbones from the N/S suspension turret. The top front wishbone had 4 shims, the top rear wishbone had 3. The bottom front wishbone had 2 shims and the bottom rear wishbone had no shims. With the wishbones removed I was able to remove over ½ inch of underseal/mud/grit from the rear of the turret! 1.5 hours

08/05/2015

Using scrappers, wire brushes and degreaser I managed to remove the worst of the grease and other crud from the top and bottom wishbones. I then left them to soak in a tub of degreaser. 1.5 hours

09/05/2015

After brushing off the degreaser and cleaning the parts as best as possible I checked the condition of the various bushes. The top wishbone bushes were excellent, showing no signs of wear. The bottom trunnion and screwed bushes were not very smooth so I filed down the mills pins that prevent the screwed bushes from turning and after a lot of “persuasion” I was able to remove the screwed bushes and lower trunnion. 2 hours

11/05/2015

More time spent cleaning the front N/S suspension parts then it was out with the MIG welder and repairs made to the bump stop area on the front road spring turret, the 2 areas of the lower wishbone and the bump stop for the top wishbone assembly. Holes were then drilled in the rubber stops to enable bolts (with the heads ground down smaller) to be passed through the holes to fix them in place as the original studs had either broken off or the rubber stops had parted from the base plates. I then gave all the parts a coat of Hammerite enamel.

5 hours

12/05/2015

All the N/S suspension parts were given another coat of paint. 1 hour

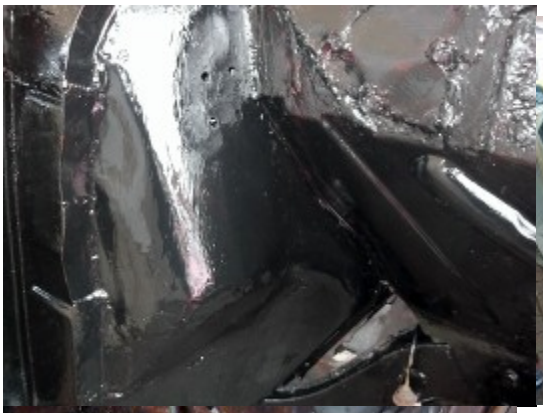
13/05/2015

The grease/oil nipples were removed from the top and bottom wishbones and cleaned out. All the joints were then given a good oiling. The N/S outer wing was then had its inner face painted with waxoil underseal. 1 hour

15/05/2015

I cut a piece of 1/8" thick steel plate to the shape of the badly corroded and holed N/S front turret top then drilled a hole in it to accept the shock absorber. The plate was then seam welded in place and then all surfaces were painted with Hammerite black enamel. The bottom trunnion was then fitted to the lower wishbones with the bush nuts (give me a Triumph TR or Spitfire or Herald set up any day! I will have to convert this set up in the future). Using the shims which I had removed the lower wishbone assembly was bolted in place and then the road spring and new shock absorber were installed. I then bolted in place the repaired lower bump stop and the top wishbones again using the original shims. 5.5 hours

Total 138.25 hours



Drivers footwell & accellerator bracket

area repaired

Front O/S inner wing painted




Front n/s chassis leg rotten

Front n/s chassis leg repaired

N/S bottom of "D" post

N/S front sill before starting repairs

N/S top sill rot cut out

Rot cut out of "B"&"C" post & sill top

N/S sill top "A" & "B" post rot

N/S hinge area repaired

N/S inner sill tacked in place

N/S sill & floor rot cut out

N/S inner sill& stiffener in place

N/S bottom of "D" post




Front of n/s inner sill welded to outer sill

Complex structure of sill

7 of the sections to join inner

sill to strengthener

Sill tread plate punched for welding

outer sill to it

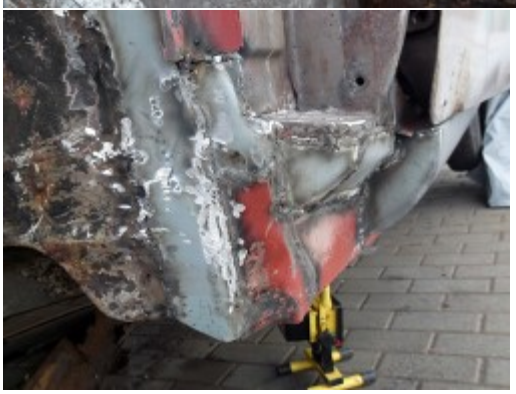
N/S "A" post & sill top solid &

almost repaired

N/S outer sill welded in place

N/S "B" & "C" post & sill top

repaired



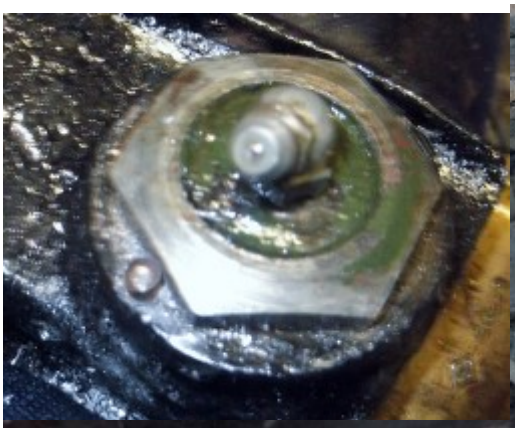
O/S wing fitted for time being

N/S Inner wing repaired

Patchwork welding for N/S lower

Bulkhead

Inner wing top rotten



Rear suspension Turret repaired

Rusted through front O/S suspension Turret

Lower Trunnion bush

16/05/2015

With a pair of new top ball joints still on order I was not able to finish off the N/S suspension, but as the wing would not impede fitting the ball joint or vertical link I decided to fit the outer wing. With it bolted in place I gave the entire outer face a rub back with a flap wheel in my angle grinder to get rid of as much surface corrosion as possible. The wing was then treated with Jenolite rust converter and when dry it was given 4 coats of zinc primer.

I then removed the OS front wing to gain access to the O/S suspension and just had enough time left to remove the brake drum and wheel hub.

2.75 hours

20/05/2015

Today I was able to spend a bit of time on the car and managed to remove all of the O/S suspension components. An initial examination indicated that the wishbones are in better condition than the N/s ones were, but there are bump stops missing!

1.75 hours

14

21/05/2015

Using a scraper, wire brush and degreasing fluid the O/S suspension components were given a clean to remove most of the under seal, grease and other crud.

0.75 hours

22/05/2015

The O/S front suspension components were once again cleaned and wire brushed. I then removed the lower trunnion and found that the mills pins were missing and hence the nut bushes had been free to unscrew (they hadn't though). All the parts were then given a coat of black Hammerite enamel. It was then the turn of the suspension turret to have a new plate welded in place so a template was made and the shape transferred onto the thick steel plate. This was then cut with a cutting wheel and filed to fit then the shock absorber hole was marked out and drilled. Before welding it in place I painted all of the surfaces that would be difficult to access after welding. The plate was then seam welded and the turret painted.

3hours

27/05/2015

Another boring half hour spent giving the suspension components and spring another coat of paint.

0.5 hours

29/05/2015

Today I had a few hours to spare so I was able to install the lower O/S trunnion and fix it with the mills pins, I then bolted the top and bottom wishbones in place and installed the road spring and new shock absorber.

3 hours

30/05/2015

The front O/S wing was bolted in place than the bonnet hinges were loosely bolted in position. The "new" bonnet was then bolted to the hinges and the bonnet was centralised before all the bolts were tightened up. I then used a flap wheel to grind away the heavy

corrosion that was on the bonnet top face, the areas were then given three coats of Jenolite rust converter.

33.75 hours/month 2 hours

15

01/06/2015

I removed the boot lid and replaced it with the slightly better condition one that I had bought on e bay. Next it was time to remove the windscreen as it is easier to fit a new screen and seal with the dashboard out of the car. It was very awkward to remove the stainless steel spreader as it "hooked" under the inner part of the seal and was well and truly stuck in place.

1.75 hours

10/06/2015

After a quick rub over with a wire brush I gave both track control arms a coat of black enamel paint.

0.25 hours

11/06/2015

Sing a ball joint breaker I removed the top ball joints from the two vertical links. I then fitted the 4 track rod ends into the track control arms (screwing them in so that they were in the same position as the old ones had been) using copper grease.

0.75 hours

12/06/2015

I installed both vertical links and track control arms then fitted the wheel hubs (without the brake hubs). The lower trunnions and the track rod ends were greased with semi fluid grease.

2.75 hours

26/06/2015

The rear gear box mounting consists of a bar that bolts to the gearbox and either attaches or rests (I haven't yet been able to figure out which, but after my efforts today I think I will attach it) on brackets that are welded to the inner sills on both sides. I used 3/16" thick 2" X 1" box section with holes drilled in both ends and I bolted inch and a half angle iron to the box sections with slots for adjustment. With the gear box supported with a trolley jack and the support bar bolted to the gear box I positioned the box sections against the inner sills and welded them in place. The both areas were then painted with zinc phosphate paint.

3 hours

29/06/2015

A long day today spent removing all necessary parts and cables along with the gear box cover to enable me to remove the engine and gearbox which I managed to do with the help of my mate Alan. The gear box was then separated from the engine and the clutch and flywheel removed so that when I obtain the correct bolts I can bolt the engine to my engine stand. The front wheels were then bolted on and Alan and I moved the car to the front of my drive. 16 hours/month 7.5 hours

16

01/07/2015

With the front end of the car jacked up and placed on axle stands I released the four front sub frame mounting bolts and removed the sub frame assembly from the car. Using the 5/16" X 3" UNC bolts that had arrived I then bolted the engine to my engine stand.

1.5 hours

02/07/2015

The front sub frame and the now exposed front chassis legs were given a good wire brushing and de greasing.

1 hour

03/07/2015

The front sub frame and chassis legs were given 2 good coats of Hammerite black enamel.

1.5 hours

04/07/2015

With the help of two trolley jacks I was able to re install the front sub frame. I then welded a new nut to the bulkhead to replace the one that had broken off when removing the gear box cover. The steering box was then cleaned off and the top cover removed to examine the internals. Although there seems to be quite a bit of play there is no sign of any wear in the "worm screw" or follower.

2 hours

06/07/2015

I touched up a few areas of the front sub frame with black enamel then removed all grommets from the front bulkhead. I then removed the brake light pressure switch and the remaining brake lines, with this done the bonnet was then bolted in place.

Moving onto the engine I was able to remove 9 of the 10 head studs. The cylinder head would not lift off the remaining stud but I was able to remove the head by turning it anti clockwise which unscrewed the stud from the block. I now have to get the stud out of the cylinder head.

1.5 hours

13/07/2015

As I had now sold the Stag I needed to accelerate the work on the Vignale, I have targeted Triumfest 2017 (July) as the time to return the Vignale to the road though not restored but as a usable rolling restoration. I therefore accepted my mate Paul from Port Talbot's offer to finish off the rear arches and where they meet the sills and to repair the door bottoms while I totally rebuild the engine and check out the gear box. With the help of my mate Robbo I trailered the Vignale to Pauls' workshop.

17

14/07/2015

With the engine on the stand I attempted to remove the sump plug, but it was seized solid, to remove it I had to drill out and weld a ¾" AF nut to the plug and use a power bar to unscrew it. The condition of the oil that came out was appalling and worryingly had what appeared to be pieces of fabric in it that kept blocking the sump plug hole while the oil was draining!

0.5 hours

17/07/2015

Today I stripped the engine block down to its component parts. The front crank shaft flange had been "butchered" sometime in the past, but everything else seemed to be in good condition. Also one of the big end bolts (on number 1 piston) was not as tight as it should have been. The big end crank pins were standard size and all big end journals and main bearing journals were in excellent condition except for number three big end journal, it showed a very slight sign that it had picked up on the bearing around the very centre, I didn't know if this will polish out or whether I would have to have the crank reground. The cam followers also showed signs of wear but the cam shaft looked to be in excellent condition I will check all these parts properly after a good clean and decide what to do.

3 hours

18/07/2015

With all the valves removed from the cylinder head I found that I would need to fit new valve guides, but on initial inspection the valves seemed okay, I checked to see if the brand new set of TR4A valves would fit but they were had a slightly smaller stem diameter. all studs were then removed from the top of the cylinder head in readiness for a slight skim and hardened valve seats for unleaded fuel use.

I measured the bores to find that they were 85mm so that I can buy the same size liners and piston/rings one piston ring on number two piston had broken. I measured all big end and main bearing crankshaft journals to find no sign of wear or ovality, it's a shame about the slight pick up on the one big end!

I then gave the engine block a good degreasing

3 hours

18

20/07/2015

I checked the oil pump for wear and it seemed to be in excellent order, if I could get a good quality new pump I will, but the new pump that I had fitted to my TR4A seemed to be of a lesser quality than the one I removed, unfortunately the TR4A pump had a lot of wear, however, as I had kept it I was able to check that a TR4A pump would fit and it did so at least I knew a TR oil pump would fit. I then gave the engine block a coat of black engine enamel. I then took the cylinder head, valves, valve springs and crankshaft to South Wales Pistons. I told the to pressure/crack test the head then if it was okay to fit new valve guides, hardened valve seat for unleaded fuel and to give it the slightest skim. I also asked them to regrind the crank and supply new big end and main bearing shells along with thrust bearings.

After picking up my bespoke wet liner removal/installation tools from Spiro I removed the wet liners from the Vignale block. I then removed one from my spare TR4A block and compared them to find that they should be interchangeable; this means that I can buy 86mm wet liners and pistons to fit in the Vignale. I then removed the crank seal from the front timing chain cover, cleaned the cover and painted it black.

3.25 hours

24/07/2015

I dragged the TR4A non overdrive gearbox out of my shed to compare it to the Vignale gearbox. The TR gear box was 3/8" longer overall from bell housing front to the back of the rear drive flange, as the Vignale drive flange was 1/8" thinner I figured that if I changed the flanges over (providing it is possible) I could shorten the prop shaft if necessary to fit the TR gear box. The big problem however is that the TR gear box has a gear lever extension within the top cover which totally alters the gear lever position. I gave the Vignale gearbox a good degreasing and clean then I removed the top covers on both gear boxes to find that they are

not interchangeable between each other. I also found that 2 gears on the Vignale gear box (3rd gear & constant mesh countershaft gear) had slight chips on one each of their teeth! On the plus side though when I coupled the input shaft to a heavy duty drill using a length of hose pipe and hose clips, the gear box turned nicely and all gears selected. I thought that I would risk fitting the Vignale gear box as it is but with new input and output seals so after making a locking tool I removed the output flange nut and the flange came off quite easily but the oil seal was a heavy duty steel bodied one and I couldn't budge it. I then cleaned up the inside of the bell housing and after making a few measurements I believe that at standard TR4A clutch will fit and if when I buy one it doesn't I can keep it as a spare for the TR.

4 hours

Total 187.75 hours

25/07/2015

I removed the output oil seal then unbolted the gearbox rear extension and using a 2 legged puller I was able to pull the extension off the gearbox with the output bearing still in the extension. Next I removed the front cover which houses the input oil seal. I then ordered new seals and gaskets for a TR4 non overdrive gear box as I couldn't find the Standard Vanguard parts, fingers crossed that they will fit.

2 hours

31/07/2015

New output and input seals were fitted along with new gaskets for the gearbox rear extension, the top cover and the input cover. The speedo drive was then cleaned up and re installed as well as the output flange.

25.25 hours/month 2 hours

03/08/2015

Today I picked up the crankshaft and cylinder head from S. Wales Pistons. The crank was reground 0.010" under size and new big end and main bearings were supplied along with standard size thrust bearings. The cylinder head had been pressure tested and then skimmed, hardened valve seats fitted for unleaded fuel, valves re faced and the valve guides sleeved! All at mates rates for £420 cash.

When I returned home I lapped the valves in and then fitted the valves and springs. Next I scrapped all the scale out of the inside of the engine block and gave it all a good clean. I then used an airline to clean out the crankshaft oil ways and then fitted the main bearing shells, crankshaft, rear oil seal and main bearing caps. With the standard thrust washers fitted there was 0.007" crank end float, 0.001" too much. I had kept some oversize thrust bearings from

my TR4A rebuild and after some meticulous filing with constant measuring I was able to reduce the thickness of a pair of the bearings to give me the minimum end float of 0.004”

4 hours

04/08/2015

An hour spent scraping gaskets off the front engine plate then giving the one side a coat of black engine enamel then I half filled the sump with degreaser and after using a brush to help cut through the ½” of gunge in the bottom I was able to remove a few handfuls of what I can only describe as grinding paste mixed with very thick oil!

1 hour

20

05/08/2015

After giving the sump another degreasing it was thoroughly dried then given a coat of black engine enamel. The other side of the front engine plate was then given a coat of the same paint.0.75 hours

11/08/2015

All 10 cylinder head studs were cleaned up then screwed into the engine block. The faces where the figure of 8 gaskets locate for cylinders 1 & 2 were also given another clean.1.5 hours

12/08/2015

After trial fitting the new wet liners, 3 would not sit correctly, I had to use a long 3 cornered scraper and remove what I had initially thought was the engine block but was actually extremely hard scale, when I measured the old liners they were a few thousandths on an inch smaller on the lower outside diameter.1 hour

13/08/2015

The figure of 8 gaskets were coated both sides with Wellseal then placed into position. The wet liners were then carefully inserted and locked in place using my home made retaining collars.

I removed all the old pistons from the con rods and after a good clean and using a fine file to remove any burrs on the mating faces for the caps I fitted the new pistons, gudgeon pins, circlips and piston rings.2 hours

14/08/2015

All 4 conrods and pistons were carefully installed and new big end cap locking tabs were used after the big end bolts were tightened to the correct torque. After each assembly was installed the crankshaft was turned over to ensure that there were no tight spots.

Small sections of cork were soaked in Welseal and driven into the rear bearing block with a pin punch to create a seal. The front bridging piece has a cork “T” piece inserted in both ends, but even after soaking the cork in Welseal and oil the cork still broke up when installing the bridging piece. I’ll have to use wood or felt!4 hours

21

16/08/2015

Using a hacksaw and craft knife I made wooden wedges to fir in the front bridging block I left them to soak in oil while I continued with other work then used a small hammer to drive them into the recesses in the block in an attempt to create an oil tight seal, time will tell!

I then installed the new oil pump (after spending an age looking for one of the mounting studs then having to use an old carburettor mounting stud from a Spitfire inlet manifold after lengthening the UNC end of the stud with a 5/16” Die).

The camshaft was the liberally oiled and installed into the block.1.5 hours

17/08/2015

The front engine plate was bolted in place with a new gasket coated with Wellseal then the front cam shaft bearing was fitted. The sump was then fitted, again with a new gasket coated with Wellseal and the bolts were just nipped up to allow the Wellseal to “spread” 1 hour

18/08/2015

I first tightened up the sump bolts then fitted the cam chain and sprockets ensuring that the timing marks were aligned. I then pressed a new oil seal in the timing chain cover and cleaned up the crank pulley spigot which I found to be in poor and pitted condition. I found an old TR4 spigot, but it was a slightly different size, it’ll have to do, I’m not happy. 1 hour

19/08/2015

The timing chain tensioner was installed and the timing chain cover fitted. The crank shaft nut locking washer was then refurbished by welding a tag on it and filing it so that it located in the crank key way so that it would lock the crank nut/starting handle cone in place.0.5 hour

21/08/2015

After the new cam followers were inserted the cylinder head was fitted along with the rocker shaft, valve springs and caps and after all nuts were torqued down the valve clearances were set. The rocker cover was then fitted. 2 hours

22

22/08/2015

I managed to separate the inlet manifold from the out let manifold, but I found that there was a hairline crack through the exhaust manifold flange where one of the 4 studs screws into for the exhaust. As it is cast iron it will have to be brazed. The flap system in the exhaust manifold for altering the fuel/air mixture is in a very bad way so I will look for an alternative and more efficient carburettor (Single choke Webber or Pierberg perhaps) than the Solex, maybe even a TR2 – 4 set up with twin SU's. 0.5 hour

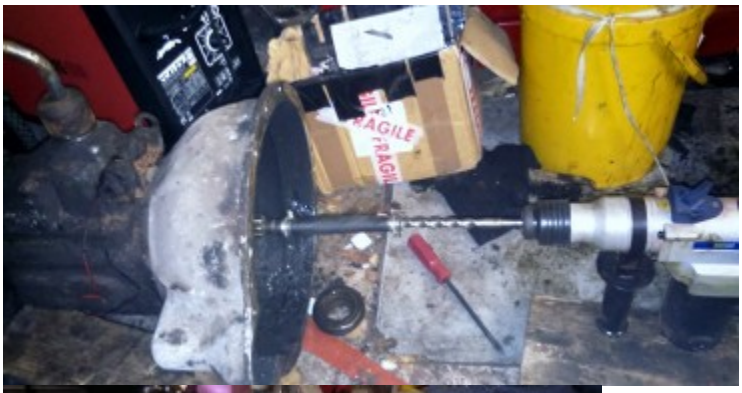
24/08/2015

A morning spent cleaning/rust proofing and painting various brackets and other parts black enamel. I also installed the oil pump drive shaft and distributer drive gear and stripped down two of the front wheel cylinders so that I could order new seals which after some research I found to be PART NUMBER 387 -738 (0.800" O/D WITH A 0.500" I/D). 3 hours

28/08/2015

After inspecting the 2 flywheels that I had, the TR4 flywheel was in better condition so after using my hoist to take the engine off the stand I cleaned up the flywheel and spigot bush and fitted them. After checking that the flywheel run out was within tolerance I removed the thrust bearing from its carrier only to find that the new bearing was loose on the carrier! I had a look at the thrust bearing that had come with the TR4A clutch and found that it would fit the carrier so after some measuring to be reasonably sure that the clutch would operate with the TR4A thrust bearing I pressed it onto the carrier then re fitted the fork locating bolt and wired it in place to hopefully prevent it coming loose (I also used thread lock). The clutch pressure plate and friction plate were then bolted in place using the correct torque. The gear box was then mated to the engine and held in place a a few odd bolts as I could not find the correct ones! Most of the time was spent looking for parts, measuring the clutch components and getting out then putting away the hoist!

3 .5 hours



04/09/2015

I made a new bracket for the one horn and then painted various brackets and a front brake back plate with black enamel paint.

27.75 hours/month 0.5 hours

23

14/09/2015

While on holiday Paul had called me to say that the arches and sill ends were repaired so Robbo & I went to pick the car up. Not only had Paul carried out the work on the arches but he had repaired the door bottoms, boot seal lip and many other areas that he had uncovered during its stay at his workshop, not only that, but he had painted the car to my design (which purely by coincidence is virtually the same as the Bruiser Racing Vignale) of ARSENAL red and white two tone, ABSOLUTELY FANTASTIC!

3 hours

15/09/2015

Only having half an hour to spare I positioned the wiring loom as best as possible. 0.5 hours

16/09/2015

An hour spent this evening fitting new seals to the front N/S wheel cylinders (I'm not at all happy that I can't get new cylinders), making and fitting a new brake pipe and assembling the brake shoes onto the back plate. 1 hour

17/09/2015

I stripped down the O/S brake back plate of wheel cylinders and shoes then cleaned and painted one side of the back plate then cleaned out the wheel cylinders and replaced the seals. 1 hour

18/09/2015

After drilling holes in the inner and out sills I injected Dynax cavity wax into the sections, I then injected wax into the A & B posts and used Waxoil on all seams. Next I fitted the boot lid stay. I then wire brushed and painted the petrol tank and fixing straps. Although the steel fuel line was in extremely good condition I replace it with 5/16" copper tubing in one length to avoid using a compression fitting. 3.5 hours

19/09/2015

Using draft excluding material on the tank straps and on the boot floor where the tank rests I fitted the fuel tank and made all the connections. A small job but one which gets a large piece of the car from the garage floor! 1.5 hours

24

25/09/2015

As soon as I had fitted new seals in the front brake wheel cylinders, a set of 4 new ones came up on e bay, I bought them and fitted them in place of the "reconditioned" ones. I then bolted the back plates on the car, and painted and fitted the dust shields and brake drums.

3 hours

26/09/2015

After fitting the front wheels I adjusted the front brakes, greased the wheel bearings, fitted the grease caps and lowered the car to the ground. I then drilled holes to mount the fuse box and then un seized the fuse box wire clamping screws. The heater, clutch & brake pedal assembly, one of the heater ducts and the radio mounting bracket were all wire brushed and painted black enamel, not good progress!

2.5 hours

27/09/2015

Only an hour spent today in which I finished painting the heater, located some of the windscreen wiper parts and fitted the fuse box complete with the connections. 1 hour

28/09/2015

With the help of Alan Gourley along with Robbo coming around for an hour to help, the engine and gear box were installed in the car. Alan & I then positioned the gearbox as straight as possible and with a bit of modification the brackets that I had previously manufactured held the gear box in a central position (I hope that it is the correct position, time will tell). I also riveted the commission plate and body number plate back in position. 5 hours

Total 239.5 hours

02/10/2015

After drilling out a snapped off bolt in the top of the plenum chamber I cleaned up the chrome plated heater air in feed grill, made gaskets to protect the paint work and boted the two halves of the grill in place, I then used a length of thin “U” profiled rubber around the edge of the air in feed cover and bolted it in place. Next I greased the wiper rack and installed it using black silicone to seal the nut boxes before tightening the nuts. I had to make a new handbrake strengthening plate as I had lost the first one I had made, this was then painted and left to dry.

After using draught excluder to make a seal I bolted the heater box in place (after “adjusting” the front of the rebuilt plenum chamber with a large copper mallet!). This work took far too long!

5.5 hours

03/10/2015

After working out how the handbrake cable should be routed, I drilled a hole in the floor and through the repaired O/S crossmember then fed the cable through the holes and fixed to the handbrake lever mechanism, this was then bolted to the bulkhead/inner wing with the strengthening plate I had made. I then worked out which way the door seal should be installed and spent over an hour inserting it into the track of the driver door only to find that I had fitted it the wrong way around (the door would not even close) and had to take it back out and then install it in the correct way! I then found that even though the door had been fitted with the old seal in place (fitted the way that I had originally fitted the new seal) the door needed a lot of adjustment to get it to close and even then it was not as good as it was with the old seal in place, hopefully the new seal will compress with use. I then used another can of cavity wax in the outer sill cavities. Another day when progress has been painfully slow!

4 hours

05/10/2015

After taking an age to tighten up the engine mounting bolts I located the oil filter (complete with the spin off conversion) and bolted it place with the oil pressure gauge feed pipe. I then rebuilt the fuel pump complete with new valves and bolted that in place. The next few hours were spent looking for the correct brake and clutch master cylinders and mounting bracket, when found I wire brushed the bracket and painted it with black enamel, I also cleaned up the wiper motor and its mounting bracket and painted them. I was able to strip the master cylinders down, from the outside they look identical, but the one had 2 seals so I believe that the one with 2 seals is the brake master cylinder. I have e mailed Power Track in the hope that they can supply me with Girling alternatives, otherwise I will attempt to buy new seals and see if the master cylinders are serviceable. I then loosely bolted the clutch and brake pedal assembly in place. Again not a lot achieved for the amount of time spent, but at least there is some progress and I am finding the items that I had "carefully stored away"!

6 hours

06/10/2015

After attaching the starter motor to a battery to ensure that there was a chance it would turn the engine over, I gave it a good clean then a coat of black enamel paint. I then removed the fuel mixture "adjuster" from the exhaust manifold by hack sawing through the shaft then drilling the shaft so that I could take the "butterfly flap" out of the manifold. I was then able to drive out the bushes that the shaft ran through, unfortunately the outside diameter of the bushes was ½" which means that I have to decide on the best way of blocking these holes, this work had to be carried out as I intend to fit a single choke Weber carburettor instead of the original Solex. Next I attempted to remove the three remaining studs that hold the inlet manifold to the exhaust manifold (one had snapped off on disassembly). Two came out while another one snapped off. I carefully drilled the snapped off ends and re tapped the holes 5/16" UNC. The face of the exhaust manifold that mates to the inlet manifold was draw filed flat and then the 3 remaining studs that hold the exhaust pipe to the manifold were successfully removed.

2.25 hours

08/10/2015

In an attempt to get the driver door to close better I removed the door seal in the hope that I could stretch it a bit more in length which would in theory make less dense, this actually worked as when I re fitted the seal (and cut about 6 inches off the length where the two ends met) the door closed a lot better than before.

0.5 hours

09/10/2015

After fitting the long length of rubber extrusion around the windscreen I cut it to what I hoped was the correct length and using a rapid drying rubber adhesive I attempted to bond

the two ends together to make an endless windscreen seal. The adhesive would not bond the two ends so instead of being able to fit the seal around the screen, insert the very heavy chrome plated brass trim strip into the seal, hooking it into the seal so that it sandwiched the screen in place then put the assembly into the windscreen aperture I had to first insert the seal into the aperture, fit the screen then cut the lip off the trim (only had time to do one trim) and push it into place, with the help of Al this took nearly 4 hours of frustration and I had to leave the car with the trim strip G clamped in place with polyurethane sealant, hoping that it will bond the assembly in place.

4 hours

10/10/2015

With the G clamp removed the trim strip stayed in place, so fingers crossed it will stay that way.

I unwrapped the painted dash board and loosely bolted it in place, but I have to make and fit red piping and the strip to fix it to before I can fit the dash permanently as the piping runs behind the ends of the dashboard. To make at least a bit of progress today I bolted the starter motor in position (one less thing to trip over in the garage). I also managed to locate the 5 trims that fit around the inside of the windscreen, I now need to clean these up, neutralise the corrosion and paint them.

2 hours

12/10/2015

A new fuel pump inlet pipe was made from copper pipe, the feed pipe from the fuel tank was cut to length and an in line fuel filter was installed between the two with nitrile fuel pipe. Next I bolted the wiper motor in position and fitted new spark plugs (after a good squirt of oil into the bores). Al then turned up and with his help the other side of the windscreen trim was fixed in place with sealant and clamped in the hope that it will hold.

4 hours

13/10/2015

Using 6mm piping rope I made up 2 lengths of red piping for the A posts and the top of the front door apertures.

After removing the recently installed dashboard I used an old fan belt to replace parts of the cork type material that runs around the front door apertures which was too worn to re use and held it in place by either bending the original steel tags back in position, or using silicone sealant to bond them in place. I then stapled the piping to the pieces of fan belt (and original material where still intact) and replaced the dashboard, more new skills that I had to “learn” and ones that I didn’t want to learn!

2.75 hours

14/10/2015

I found the rubber right angled hoses that fit to the firewall for the heater screen de mister outlets to locate in on the engine compartment side and the hoses for the vents under the dashboard. To fit them I had to unbolt the heater, but with this done they went in easily and the heater and the N/S vent were soon bolted in place. The steering column support was then bolted in place and the lower dashboard trim located and given a good clean. The O/S vent along with a dashboard support bracket were then cleaned up and painted black enamel.

1.5 hours

15/10/2015

After giving the interior top and side windscreen trims a rub down with wet or dry I sprayed their inner faces with rust killing paint. I then rubbed down the plastic steering column shrouds and the binnacle face. The three windscreen trims were then given three coats of primer.

1.25 hours

19/10/2015

After flatting back the windscreen trims I gave them four coats of Old English White. I decided not to use primer on the plastic steering column shrouds and binnacle, so these were given 6 coats of Signal Red and left to dry.

1.25 hours

20/10/2015

Using the old rear door cards as rough patterns (as they were badly damaged and distorted) as well as taking measurements from the actual doors, I cut 2 new door cards from hardboard and drilled the clip holes and door furniture holes. God knows how good a fit they will be when covered!

1.5 hours

21/10/2015

Today I made up the front door cards using the same method as the rear ones.

1.5 hours

22/10/2015

After using a length of thin rubber “U” section to hide the damage caused by corrosion to the N/S A post trim, the top, 2 X corner and 2 X A post trims were fitted using new screws, I then

fitted the 2 padded sections of the lower dashboard trim and although I had cleaned them up and I thought that they were looking good, they looked decidedly tatty on the against the freshly painted dashboard, I may leave them as they are or I may try a top quality cleaning agent , probably the former. I also fitted the O/S heater vent for the windscreen.

1 hour

23/10/2015

An annoying day today spent looking for cables and fittings so not a lot accomplished. I did, however, manage to fit the choke cable and the electrical switch next to it, remove the passenger door handle and strip it to its component parts in the hope that I can procure a new barrel(s) and key, install the master cylinder mounting bracket, clean up most of the electrical connections and check that the switches were functional (with my meter), fit an oil filter, replace the instrument illumination lamps, clean and paint the control box and made new B post pillar base cards. Where are those f*****g P clips I bought!

5 hours

24/10/2015

After ordering new P clips I found the ones I had previously bought! I repaired the 4 cables for the foot high/low beam switch and fitted new connectors and connected the wiper motor. After finally working out (I think) where 2 brackets should locate to strengthen the dashboard I realised that I had welded the front of the plenum chamber over 2 holes (which had not existed before as this area was a rust hole) which were required for spire bolts to add strength to the pedal box mounting and a dashboard bracket. I used a drill, a dremel and a file to create holes in the front of the plenum chamber so that I could drill holes for the spire bolts. I will have to work out a neat way of re sealing the holes without losing access to the bolts.

2.5 hours

Total 286 hours

25/10/2015

Today I managed to fit the clutch slave cylinder to its mounting bracket then bolt the assembly in place after un seizing the clutch push rod. I also assembled the actuating forks into the clutch & brake master cylinders and bolted them in place. I also re connected the wiring loom that powers the rear lights to the main loom. My mate Light Duties called over to show me a better method of installing the door seals, he re fitted the driver door seal and fitted the O/S passenger seal, while he was with me he helped me to work out how parts of the dashboard went back together, as he said “Fantastic”. He also took away my exhaust

manifold so that he could braze the holes for the now redundant hot air valve and the steering wheel ans horn push to paint them in hard wearing two pack.

6 hours

26/10/2015

Another day of horrible little jobs which included, making and fitting 3 brake lines, one from the master cylinder to the 4 way connector/brake light pressure switch and 2 from the 4 way connector to the front flexi pipes (which I haven't made yet so I did not form ends on the 2 brake pipes). I also fitted the instruments into the binnacle then gave the binnacle another 2 coats of paint to get a better gloss, made a fibre washer for the oil pressure gauge, located the oil pressure pipe and then fitted the binnacle in place after making all the electrical connections. While the binnacle was drying prior to fitting I wire brushed then painted black the fan heater connecting duct, the windscreen washer bottle cradle and the water pump housing. I also welded bolts to the back of the old brake pipe to bulkhead fixing brackets. The last job of the day was to fit the NOS rear O/S door locking mechanism.

6 hours

30/10/2015

Today I managed to fit the steering column, inner column sleeve,horn assembly and steering wheel. This was far from easy as the horn/steering wheel centre has cables that run right through the length of the inner sleeve which in turn slides into the entire length of the steering column, also the steering wheel has to be fitted first and it is not possible to estimate better than within 20 degrees if the steering wheel will be straight when the road wheels are pointing straight ahead and all steering joints are set correctly. If the steering wheel is not straight the horn/steering wheel centre will have to be removed and to replace it, the cables have again to be fitted to run right through the steering column and through the steering box and again, this involves feeding welding wire through the entire length of the column (about 6 feet), soldering/fixing the horn assembly cables to it then drawing it through, this was hard enough with the column removed from the car.But Light Duties made a fantastic job of painting the steering wheel and horn and it looks Fantastic.

2 hours

31/10/2015

Light Duties came around again and completed the fitting of the door seals FANTASTIC.While he was doing this I fitted the inlet manifold (without the gaskets as I have lost them) and Weber carburettor to enable me to design and make a throttle set up using a Herald accelerator pedal and a bespoke cable with whatever fittings I need to make. I also trial fitted the alternator (instead of the standard Dynamo) and had to file away part odf the front engine plate to accomodate it. I them made measurements so that I can make up a spacer and also a bracket to facilitate fan belt adjustment.

62.5 hours/month 2 hours

02/11/2015

After jacking the front of the car so that the front wheels were off the ground I placed axle stands under the front subframe so that I could turn the steering wheel through full lock. I removed the front road wheels then made some measurements so that I could make up the front flexi brake pipes from braided stainless steel piping and compression fittings. With pipes made for the two front brakes I then removed the front brake lines that I had part made and formed the ends for the female connectors, with these replaced and connected I now have a full front brake system in place. I then turned my attention back to the steering column shroud which did not seem rigid enough and after close examination I found that I needed to fit two bolts to connect the column shroud to the dashboard reinforcing panel. To do this I had to remove the instrument binnacle, but after the bolts were in place the shroud was nice and sturdy. It was too dark by now to re fit the instrument binnacle.

2.25 hours

06/11/2015

All I managed to do today was to tack weld a steel insert into the cut alternator adjusting arm after first clamping everything together to ensure that the alternator pivoted with the curved slot in the adjusting arm. The rest of the time was spent re inserting 2 binnacle bulbs, removing the rear engine lifting bracket and making a sketch of the gasket that I need to join the 2 manifolds. While doing this I noticed that the inlet manifold has had a lug broken off! (I don't know how I missed this before). The only bright part of the day was my mate Paul G dropping by to see the Vignale.

2.25 hours

07/11/2015

As I couldn't make any significant progress due to requiring parts I had a quiet few hours just to try to get the car slightly closer to completion. I stripped and cleaned the distributor then put it back together with a new cap. After making a new pedestal gasket I bolted it in place then inserted the distributor setting the timing by eye. I then made a new set of HT leads.

2 hours

09/11/2015

I had been able to buy some stainless steel self tappers and countersink set screws at the Bristol Classic Car show (but nothing else!) so I was able to fit the binnacle and steering column covers in place. I then removed the rear flexi brake pipe so that I could measure it up and buy more braided hose and fittings to make a new one. This enabled me to remove the brake line that runs from the front 4 way connector to the rear flexi hose and make and fit a new one. I also used some "P" clips to fix the pipe in place. The gear box tunnel was then given a good wire brushing and treated with Jenolite rust converter.

4 hours

13/11/2015

After drastically altering the mounting bracket I was able to fit a Triumph Herald type ignition switch, work out where the cables should fit, then crimp spade connectors to them to accommodate the terminals on the switch. I then spent the next hour and a half looking for the battery cables and solenoid, then identifying various electrical cables, repairing some and fitting new connectors.

2 hours

16/11/2015

The first job today was to make a gasket out of 1.2mm copper plate to fit between the exhaust and inlet manifold. I then made up 2 earth cables, one to connect the battery to the body and one to connect the body to the engine, a new flasher unit was then fitted with new connectors fitted to the cables. With the battery cables in place and connected (positive to the starter solenoid) I managed to make various connections to give an ignition and cranking circuit through the ignition switch. I then fitted an ignition coil and set the timing. The water pump to heater matrix pipe was then cleaned up and fitted. With this done I then made up a braided hose to join the oil pressure pipes and one to fit to the clutch slave cylinder. A copper clutch line was then made up to link the clutch master cylinder to the braided hose on the slave cylinder. With daylight fading I just had enough time to fill the clutch master cylinder with hydraulic fluid and bleed the system to give a moving clutch fork (whether the various clutch components are operating enough to engage/disengage the clutch only time will tell).

5 hours

20/11/2015

As I find upholstery work very boring I had been planning to recover the new door cards that I had made and then the seats during December, January & February, but this week I was introduced to Ron who does car upholstery as a side line. I gave him my door cards to cover and today he gave me the 2 rear door cards back. They looked very good in ARSENAL Red & White, hopefully Ron will do the rest of my upholstery!!

After putting a gallon (I thought that I had 2 gallons but as I didn't I will need to add a few more pints at a later date) of 20/50 oil in the engine I filled the gear box up and the steering box. I then fixed the upholstery clips to the rear N/S door card, glued thick polythene to the inside face of the card and then trial fitted the door card. I had to make a few "adjustments" to the clips in order to get the card to fit, but in the end it did and it looked very good. I then removed the door car to enable me to fit the spring that locates on the window winder. With the card then back in place I found the box of door handles and fittings with one window handle and one dished washer (that the door handles and window winders locate in to prevent door card damage) missing. After a long search I found the window winder but not the dished washer, so using an old brake calliper piston and a socket I pressed the recessed shape into a piece of sheet steel and then drilled the centre hole before cutting the outside

diameter and filling it to shape (more time wasted). All 8 washers were then cleaned up and their front face given 3 coats of black paint from an aerosol.

A new bolt was then used to fix the front N/S sub frame to the chassis. The steering box support arm was also then bolted in place (while doing this I found that the steering box was weeping oil from the steering column central tube olive.

3.5 hours

Total 323 hours



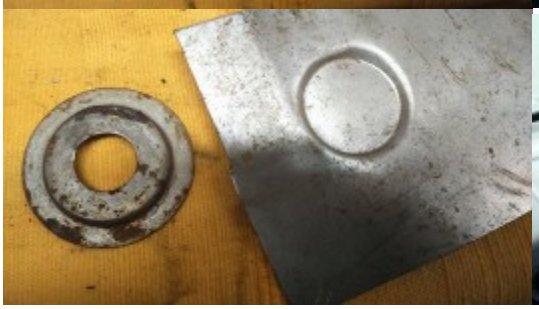


FANTASTIC!

Steering Colum Cover Painted Red

One Set Of Hardboard Door Cards.

Binnacle Painted Red.



23/11/2015

Although I spent most of the morning on the car I only managed to achieve the following, I ground down the welds on the alternator adjusting bracket and painted it, I gave the 8 dished washers another coat of paint, the upholstery clips were fitted to the rear O/S door card, an olive was fitted to the steering box to hopefully stop the oil weep (this had the effect of locking the central steering column tube), I had to make 3 screws to hold the steering wheel boss/horn push/indicator switch hub onto the steering wheel (but these did not lock the boss so it turns independent of the steering wheel). A tool for fitting the "Omega " clips into the door handles and window winding handles was made (to replace the one I had previously made and couldn't find) and last but not least I temporarily fixed the accelerator link in position.

3 hours

24/11/2015

I emailed Peter Foster (Vanguard Phase 3 Technical guru of the Standard Motor Club) who confirmed that the steering wheel boss/horn push/indicator switch hub should not move with the steering wheel and after he gave me a few pointers I was able to assemble the boss and column tube (hopefully correctly) – Thanks Pete! 0.25 hours

25/11/2015

After fitting the clips to the rear N/S door card I glued polythene to the inner face and fitted it to the door. I then fitted both rear window winders and door handles. With a battery fitted I managed to get power to the front side light, main beam and high beam circuits through the light switch and high/main beam switch. In the process I fried a horn live cable and had to strip part of the loom and replace the cable (thankfully it was only the one cable damaged). I then fitted the clips and glued polythene to one of the front door cards.3 hours

26/11/2015

Today I fitted the driver's door card along with the new door arm rest brackets that I had made up, then the window winder and door locking handle, I thought that everything was fitted correctly, but when I closed the door I heard the window winder handle fall off! After a prolonged search I managed to locate the front door arm rests. I removed the top part and separated the rotten foam and vinyl cover from the steel base plate on both rests. The steel base plates were then wire brushed and given a good coat of marine grade red enamel. An electric knife was then used to cut new foam tops. 29 hours/month 1.75 hours

01/12/2015

After gluing the armrest foams to the steel bases I covered them with white PVC, wrapping the foam and gluing the PVC to the bottom of the steel base plates. 2 hours

04/12/2015

After looking to see why the driver window winder (in daylight) had come adrift I could see that the spindle shaft had twisted (due to a previous owner using excess force to try to move the window), so after removing the locking handle and door card I removed the mechanism and straightened it as much as I could in my vice, I then filed the shaft until it was a nice fit in the window winder and re fitted it to the door. The door card was then re fitted along with the window winder and locking handle. Before fitting the front N/S door card I checked the window winder and locking handle spindles to find that the window winder spindle needed filing and that the locking handle spindle had been welded at some time and that the groove for the locking clip had been omitted so I also had to file a groove in that spindle. With this completed the new arm rest bracket, door card, window winder and locking handle were fitted.

My attention then turned to trying to sort out another part of the electrical circuit, the windscreen wipers. After working out which was the wiper switch and with the ignition on I turned the switch, nothing happened. I checked that there was a constant positive feed to the motor and there was, the main body was earthed, so by passing the switch I earthed the other motor contact and again, nothing! I disconnected the motor from the wiper rack, removed the motor and stripped it down to find that the brushes were completely worn down. I found an old Triumph 2000 wiper motor and although the internal set up is completely different I was able to remove the carbon brush blocks from the 2000 motor and after prising open the brush holding arms from the Vignale motor I filed the carbon blocks until they would fit in the brush arms and could be held in place by squeezing the brush arms back together. With the motor reassembled I wired the motor directly to the battery and surprise surprise my bodged repair worked and the motor turned. With the motor bolted back in place and the rack re connected I made the electrical connections and low and behold, nothing! I checked the wiper switch and found that the connection to earth was not making, so using my multi meter I found the broken connection and with a new piece of cable soldered in place and earthed to the dashboard the wiper motor operated via the wiper switch. 4.25 hours

05/12/2015

After giving the lower plastic sections of the two front door armrests a good clean and rub with 600 grade wet or dry paper I gave them 6 coats of ARSENAL Red paint. I then spent an hour filing the threaded collars so that they would fit nicely in the recesses in the armrests.

1.5 hours

08/12/2015

After a good wire brushing the two horns and the heater motor were given a good coat of black enamel paint. 0.75 hours

11/12/2015

My mate Granville welded the aluminium inlet manifold for me and did a great job so today I fitted the inlet manifold to the exhaust manifold using the copper gasket/blanking plate (as I don't want hot exhaust air entering the inlet manifold) that I had previously made. I then had to modify two of the studs that hold the manifolds together by cutting 5/16" off them (to allow the Weber carburettor linkages to operate) and then cutting longer threaded portions on the 4 studs. I then attempted to remove the vacuum pipe fitting from the inlet manifold, but it snapped clean off so I had to drill it out and tap a 3/8" UNF thread so that at a later date I can fit a brake bleed nipple to attach the vacuum pipe to. With this completed I offered up the manifolds to the cylinder head but found that the 2 top inlet mounting holes were not aligned. To address this I made up an aluminium spacing plate and put it between the inlet manifold and the copper gasket/blanking plate. All the manifold mounting holes then lined up (just about). The manifolds were then bolted to the cylinder head and the carburettor was bolted to the inlet manifold. 3.5 hours

12/12/2015

As the next stage was to see if the engine would run I needed to fit what was left of the old exhaust pipe to the manifold in order to take most of the noise out of the engine bay. I could only find one 3/8" UNC stud, so with that in place and one bolt (no gasket) I coupled the exhaust to the manifold. A temporary fuel line from the pump to the carburettor was then made by cutting the end off the original steel pipe, bending the pipe to get it close to the Webber carburettor then using nitrile fuel pipe to complete the connection. With this completed I fixed fuel pipe to the inlet side of the pump and placed the other end in a container of petrol. The fuel pump manual lever was then operated until the glass bowl filled with fuel, then a few extra pumps to get fuel to the carburettor. With a battery connected and the ignition on I was just about able to operate the choke and throttle on the carburettor while being able to press the solenoid button. The engine fired on the first turn, then started on the second. As there was no cooling system I only revved the engine slightly and then turned it off. I will only know if the Webber is suitable when I have a cooling system and I can run the engine properly.

A new water pump was then fitted along with the new narrow belt fan belt pulley that I had had made specially. A fan belt was then fitted and tensioned with the alternator using my homemade bracket. 2 hours

13/12/2015

Using the old (distorted by damp) rear parcel shelf trim as a pattern (after removing the PVC cover), I traced around it on a piece of hardboard and cut it out using a power jigsaw. I then checked its fit on the rear parcel shelf and sanded down the edges. My attention then turned to the radiator and when I attempted to remove the drain tap I found that the threaded boss that it screws into was turning. As the only way to access this is by removing the core I decided that I would have to take it to Fast Rads to see if they could recondition the radiator. I had phoned them previously and they wouldn't commit to doing any work on it, but said that they would "take a look". Fingers crossed! 1 hour

14/12/2015

After taking the radiator to Fast Rads where thankfully they were confident that they could recondition the radiator and fit a core that would give more efficient cooling I turned my attention to “cobbling together” an accelerator system. The first thing that I had to do was to make a throttle operating arm for the Weber carb, I did this by cutting up the original arm which was made for a solid bar type system and welding a piece of steel to it in a position that I hoped would turn to give a good operation, I then drilled a hole in the arm to accept a cable fitting, this along with the original cable holding bracket were painted in the only colour paint I had – red. Next I cut some Bowden cable (given to me by my mate Gwyn) and filed the nipple so that it sat nicely in the accelerator operating linkage, outer cable was then cut to suit. As I could not go further with the carb set up until the red paint had dried I fitted the bracket that I had found to the outer side of the pedal box brackets and the dashboard. The next job was to “coax” the handbrake lever bracket into a position which allowed me to bolt it to the dashboard.

Because I had converted the charging system to an alternator and I had only temporarily connected the cables that had previously been fitted to the control box I decided to alter the control box by drilling out the rivets that hold the male spade connectors in place and move them around so that the control box could be used as a connection box with links soldered in place on the underside of the control box. With this completed I had just enough time left to flat back and prime the heater control consol. 6 hours

15/12/2015

After flatting back the heater control consol with 600 grade wet or dry I gave it 4 coats of ARSENAL RED from an aerosol. The various brackets and fittings for the carburettor were also given another coat of red paint. I then cleaned up the 2 aluminium castings for which hold the thermostat and the water temperature sender. 0.5 hours

19/12/2015

The carburettor accelerator cable bracket and the throttle operating arm were fitted, the accelerator cable was then cut to length and all connections made. After checking that the linkage inside the car operated the throttle arm a return spring was fitted. With this done the accelerator pedal was positioned and holes drilled in the floor to accept the fitting bolts. A 3 inch long bolt was then used to act as a pedal stop.

After checking that the thermostat operated by immersing it in near boiling water the thermostat housings were bolted together and fitted to the cylinder head. The water temperature sender was the screwed into the housing. After checking the hot water control valve for the heater and finding that it wasn’t fully shutting off the flow I found a new item, but I had to strip it down to “re orientate” the position of the operating arm. With this completed the fan and coolant filling assembly were wire brushed and given a coat of ARSENAL RED.

4 HOURS

Total 356.5 hours

20/12/2015

The front of the heater “box” was fitted then the heater control valve was installed using a new “O” ring. I couldn’t find one of the heater operating cables so I had to make a new one up from an old Spitfire control cable. I also couldn’t find the original cable trunnions (cable clamps), but I did find some in my spares stash after a bit of rummaging around. The heater control unit was then re assembled and the cables fitted and set so that the heater flaps and control valve operated. The control was then bolted to the dashboard.

I managed to find some cooling hoses amongst my spares that after cutting to length could be used to make the inlet and outlet connections to the heater unit.

The modified electric control unit was then screwed into position on the master cylinder bracket.

The fan and coolant filling assembly were then given another coat of red paint.

2 hours

21/12/2015

After connecting the battery through a 10 amp “breaker” fuse for electrical “protection” I made the connections to the modified electrical control box. The ignition circuit, light circuit, wiper circuit and the heater circuit all operated. The only issue was that I found a lamp that I could not identify was on with the ignition both on and off, I could only surmise that it was something to do with the courtesy light circuit.

The cooling fan was then bolted to the water pump pulley the front horn was bolted on to its bracket which was in turn bolted to the inner wing with its strengthening plate. I couldn’t find the strengthening plate that I had previously made for the rear horn so I had to make and paint another. The heater deflector assembly was then bolted beneath the dashboard. I then tried to fit the new 3/8” UNC studs to the exhaust manifold, but the threads were so bad that they would not screw in or allow 3/8” UNC nuts to be screwed on to them, I tried to chase the threads using a die nut, but they needed a split Die and 3/8” UNC was the only split Die I couldn’t find!

I then looked at the heater motor but I couldn’t fit it as I had bought the wrong type of rubber bobbins, but I did strip the assembly down and check the motor which did operate.

I had noticed that the rear O/S door would not open so I removed the door card to gain access to the mechanism. With this adjusted and lubricated I was able to open and close the door again so the door furniture and door card were re fitted.

A lot of time spent today with very little progress to show for it.

5 hours

22/12/2015

After picking up the radiator from Fast Rads I installed it then spent 2 hours trying to find hoses to make the connections, I even had to saw a piece out of a round section of my daughters trampoline to join to rubber hoses together to make a connection from the bottom of the radiator to the water pump housing (this will hopefully only be a temporary measure while I try to procure hoses at autojumbles etc). With all new hose clips and the water system filled I attempted to start the car. It fired but it felt like it was fighting the ignition timing so I retarded the timing and the car started. I allowed it to warm up but it would only settle to a tick over if I had the choke half on. I shouldn't really worry about this at this stage, but I thought that it would be a good idea to try the original Solex carburettor if the engine runs better with that I could always fit the Webber at a later date when the engine has a few miles on it and I can rev it properly. As I hadn't put any anti freeze in I drained the cooling system.

So back in the garage I stripped the Solex down and cleaned it up as best as I could, I also made a new inlet connection for the fuel line so that I could attach the nitrile pipe that I used for the Weber.

3 hours

23/12/2015

The Weber carb was disconnected and removed and the Solex put in its place. The cooling system was filled with water and the temporary fuel supply set up, it was then that I noticed a drip of water from the rear of the engine!!!! Using my inspection lamp and a mirror on a telescopic arm I was able to just about make out a "globule" of water on the core plug!!!!!!!!!!!! This meant that the cylinder head had to come off with the issue of disturbing the figure of 8 seals. I had replaced that core plug using Wellseal and had given it a good "whack", the only thing that I could think of was that the core plug had been so thick that it had not seated properly as when I had fitted it the cylinder head was on the bench and may have moved under the force of the blow father than allow the core plug to seat properly. Instead of my usual method of "diving straight in " and dismantling the head I took 5 minutes to have a think, if I removed the head and fitted a new core plug which didn't seal I would be back in the same position, so after making a few measurements (not really, I just got out my angle grinder and cut away) I cut a "hatch" in the bulkhead from inside the car after removing the heater deflector and was able to access the core plug from inside the car. With a long ½" socket extension bar and a socket on the end I gave the centre of the core plug a good few whacks and the leak stopped. FANTASTIC! I then filled the cooling system and started the engine. After a few tweaks of the carburettor's mixture and tick over screws the engine was running nicely with no sign of the core plug leaking. I used some rubber trim to cover the edges of the core plug access hatch, made and fitted a rubber seal and re fitted the heater deflector. The cooling system was again drained as I would not be putting anti freeze in until good hoses were sourced and fitted.

I then turned my attention to fitting the front slam pane and after cleaning out the captive nut threads with a 5/16" UNF tap and a little fettling the slam panel was bolted in position.

3 hours

29/12/2015

After fitting the top horn in position I assembled the heater motor using the new bobbins, then when trying to "coax" the new flexi pipe that joins the heater motor to the matrix box I dropped the heater and had to spend the next hour bonding it back together with Araldite! I then fitted the bottom valance panel. With this in place I realised that I should have fitted the centre support brace assembly before fitting the slam panel and bottom valance panel so they were both removed, the centre support brace was fitted and the slam panel and bottom valance panel were then fitted again! Now it was time to fit the bonnet latch which I had "stored" in a bag with the badges, I spent an hour and a half looking for the bag but with no luck, what a day, if I am able to source badges and a latch they will cost a fortune!

4 hours

30/12/2015

Using a cut up tyre inner tube I made a flexi pipe to link the heater motor to the heater matrix box (as the flexi pipe I bought was a bit too tight on the heater motor housing and I didn't want to risk breaking it now that it had been glued back together). The heater motor assembly was then bolted to the bulkhead and the inner tube tie wrapped in place. The vacuum advance and retard pipe was then fitted, the new jets for the Weber had arrived and I had fitted them, but as the Solex was allowing the engine to run well I thought that I would change the carburettors at a later date.

After jacking the rear N/S of the car so that the wheel was clear of the ramp it had been sitting on and with an axle stand in place I removed the shock absorber, rear wheel, brake drum, brake shoes and wheel cylinder. The shoes looked like they had been contaminated at some time so I will take them to the next few auto jumbles along with the shock absorber to try to match them up with any that are for sale.

45 hours/month 2.5 hours

02/01/2016

As it's always easier to check out electrical circuits with a spare pair of hands my mate Al came around equipped with his colour coded wiring diagrams which were a great help. After a few hours cleaning/replacing connectors and any dodgy cables we had a charging circuit, ignition light and horns, the horns did have a "delay", but after the contacts were scrupulously cleaned they were working "on the button" (or very nearly). 3 hours

05/01/2016

As the horns were not fused I soldered in line fuses to the live cable feed on each horn, the fuses will be housed in each horns “dome”.

The control box was again dismantled and the required links for the alternator circuit were soldered up securely. The various large cables that were to be attached were stripped of their large crimp connectors and new ones were soldered in their place. The top coolant hose and by pass hose were changed for new ones that I had bought on e bay.

Next it was time to find the live feed for the heater switch, check that the circuit was fused (which it was) and make the connections. After checking that the heater motor was running the correct way a new ring crimp connector was used for the earth and a bullet connector was soldered to the live.

As the car had been changed from positive to negative earth the wiper motor is running back wards but as the car had only come with one broken wiper arm I had to search through all my old spares (junk) until I found a wiper arm with a straight connector for the wiper blade and then had to make another good one from 2 bad ones (now not junk) using solid rivets. With this completed I had functional wipers, FANTASTIC!

The last job of the day was to remove the front passenger door card and fit the external door handle, by the time I finished this it was too dark to continue. 4 hours

06/01/2016

After joining the links from the door handle to the latch I fitted the door card and then the window winder and internal door handles. As the new speedo cable had arrived I found the best route for it and connected both ends.

1 hour

08/01/2016

After unwrapping and cleaning the “original” packing grease off the NOS grill I was p***ed off (as I paid an awful lot of money for it) to find that the chrome had rust bubbles in a few places! To obtain anything like a decent fit I had to loosen all the front panels and elongate some of the fixing holes. With this done I used tape to hold the sidelight and indicator trims in place then marked out the positions of the indicator and side lights in the wings, the trims were then removed and using a hole saw I drilled the 4 holes for the side lights and indicators, slots for the fittings were then filed. 2.5 hours

11/01/2016

Today I installed the NOS back lights that I bought over 10 months ago, I then spent a few hours cleaning the brass bullets on all the front light and indicator connections and making new cables to connect the lights and indicators to the main loom (all with new soldered bullet ends and new insulated connectors). I also made new cables for the reverse light switch. 2.5 hours

12/01/2016

Although I had bought new 7" headlamp bowls (as the original ones were a mass of corrosion and sections broken away on the "flange" that locates onto the front wings), when I inspected them I found that the new ones were of a smaller outside diameter, I cleaned up the original assemblies to find that in fact the "flange" that locates onto the front wings was actually a separate outer ring. I managed to strip the original assemblies down to their component parts and the original steel bowls and the headlamp "clamping" rings were in good condition. I couldn't find any of the outer rings on the internet so I spent hours repairing the originals by cutting up sheet steel, shaping it and welding the repair patches into the sections of missing/corroded areas of the original rings. They were all then given 3 coats of Jenolite, the 2 coats of paint.

As the bonnet latch had arrived from the Standard spares secretary I offered it up to the front panels of the car (this latch differed from the original which I had lost as it is not cable operated, which I prefer) after unbolting them (again!). After a few adjustments I managed to bolt it in place and had a functioning bonnet latch although I will have to file a few holes for a better action when it comes to the final fitting. I then removed the latch and gave it a good clean and a coat of paint. 5 hours

13/01/2016

As it was a dry day I decided to fit the rear shock absorbers, brake shoes and wheel cylinders, as the N/S had already been stripped I painted Waxoil underseal in the recess where the top of the shock absorber fits before fitting it. With the shoes and wheel cylinder fitted the brakes were binding a bit so if I ever get the car on the road I'll have to watch out for this overheating. After completing the N/S I removed the road wheel, brake hub, shoes and wheel cylinder from the O/S and replaced them with the new items, this side did not bind. I then removed the old shock absorber, cleaned up the top mounting recess, painted it with Waxoil under seal and fitted the new shock absorber.

I then turned my attention to the rear handbrake cable, link rods from the wheel cylinders to the compensator and the one to the cable. As expected and even after previous doses of penetrating oil the fittings were seized and it took a good while to remove the parts from the car along with an ingeniously designed compensator "swivel". 5.5 hours

14/01/2016

The painted bonnet latch was fitted and measurements made so that the mounting holes for the top spring loaded section could be filed to get as good alignment with the bottom section as possible. The two parts were then fitted and the slam panel bolted in place. The latch worked well. After tapping out the holes for the rubber faced bonnet stops they were fitted and adjusted to obtain the best shut lines.

The rest of the day was spent fitting the head lamp bowl assemblies into the front wings, fitting the front O/S indicator and side light bulb holders (along with the chrome trim), soldering cables, fitting a head light connector and making the relevant electrical connections. At the end of the day I had an O/S headlamp working on high and low beam, a

side light and an indicator (which shouldn't have flashed on and off without the rear light bulb, but did!). 5 hours

15/01/2016

Although it was again freezing cold I managed to fit the front N/S indicator and sidelight, headlight and finish all the wiring for the front lights and indicators including a wiring loom repair. The front grill was then fitted along with the lower panel, all very fiddly and time consuming. The lenses for the front indicators and side lights were then fitted. I couldn't believe how long this all took, but at least the car now has fully operational front indicators, side lights, low and high beam headlamps. 4.5 hours

Total 412 hours

20/01/2016

As the areas of the rings at the bottom to which the headlamp cowls are supposed to clip on were corroded away I drilled a hole in the bottom of the cowls and used tie wraps to secure them in place (hopefully I will be able to find new rings at a future autojumble) the tops were held to the rings by a screw in each one.

I made two new brake pipes out of Copper/Nickel, bent them to shape and clipped them to the rear axle, the new wheel cylinder dust "boots" that I bought at the Coventry autojumble were fitted to the wheel cylinders then the new brake pipes were connected to the wheel cylinders. The 3 way connector was then installed and the rear brake pipes were fitted to it. I then made a stainless steel flexible brake hose and used it to connect the 3 way connector to the front to rear brake pipe. Although I was working alone, I then managed to bleed the brakes and obtained a good solid "pedal". 4 hours

22/01/2016

As I was not feeling well and it was pouring with rain I restricted my efforts to cleaning the handbrake cables , rods, linkages and compensator, stripping them down and cleaning up all the threads and then giving the rods a coat of red enamel. The one rod had had its fitting welded on at one end by a previous owner so I don't know if I will be able to re use it and still obtain the correct adjustment or whether I'll have to make a new rod and attempt to salvage the existing fitting or make/procure another, time will tell. The cable was given a good oiling. 1.5 hours

23/01/2016

All sealant was cleaned from the gear box cover and where it locates on the floor pan. Draught excluder was cut and stuck to the floor pan and the cover was fitted after a bit of a struggle and cleaning out the captive nuts with a tap. The high/low beam switch was then installed and the cables fed through the bulkhead and connected. I then spent some time fitting rubber grommets in the bulkhead where cables pass through. A new pivot pin was

then made for the throttle linkage and secured with a split pin. Spit pins were then fitted to the handbrake mechanism pivots. As the passenger front door inside door handle was coming off when the door was slammed, I removed the window winder, door handle and door card then built up the shaft where the door handle locates with weld, then ground it back and cut new locating grooves for the locking spring clip. With everything re fitted I slammed the door several times and the door handle stayed in place (no doubt that when I close it gently sometime in the future the handle will fly off again). As I wasn't happy with the way the front grill was bolted to the slam panel I made up 6 "T" washers to give a better fitting arrangement. 4.5 hours

24/01/2016

After using my angle grinder to cut through the bolts holding the front bumper mounting brackets to the bumper I gave the four brackets a good wire brushing then gave them all a good coat of my red rust killing paint. I then turned my attention to fitting the front jacking brackets and the 2 side brackets, quite a bit of "persuasion" was required to get all the holes to line up. 1.5 hours

25/01/2016

AS the weather was dry I decided to spend a bit more time lying under the car and fitting the handbrake components. I had estimated (correctly for once) that the screw and spring type fittings that I needed for the handbrake rod "forks" were the same as used on the TR4A clutch push rod "fork" and the ones that I had ordered were given a coat of copper grease prior to fitting. The compensator was fitted with a new "O" ring and packed with grease before fitting. It was then a case of fitting the secondary cable and the two rods that connect the wheel cylinders to the compensator. All this was punctuated with removing the fittings, adjusting the rods and the cables, refitting, removing again until they could all be connected. I'll have to raise the rear wheels off the ramps currently in position to make any final adjustments. While still under the car I also drained the rear axle and was pleased to find that there was quite a bit of oil in the differential. The front bumper brackets were then given another coat of red paint. All this took longer than I thought, so I'm definitely slowing down with age! 3 hours

29/01/2016

A bad cough had prevented me from working on the car for a few days so I braved the wet and windy conditions to fit the front bumper brackets, the panel that runs along the width of the front of the car just under the front bumper and finally the front bumper, awkward to do on my own, but at least I had made some progress and there were 2 less things for me to trip over in the garage. 2.5 hours

30/01/2016

A morning spent cleaning electrical contacts, replacing cables and connectors, tracing cables and fitting a new washer switch, but when I finished I had power to the washer motor, courtesy light working (though not through the door switches), rear lights working, rear

indicators working and brake lights working (with the pressure switch by passed). Will the still be working when I next check? 54 hours/month 4 hours

03/02/2016

After removing the spare wheel cradle scrapping crud off the differential and wire brushing the rear underneath of the car I painted Waxoil under seal on the entire area, I then spent the remainder of the afternoon again cleaning contacts, tracing cables and by tea time I had an operational reverse light and rear number plate light. Although I had 12v on the live cable of the sender the fuel gauge did not register when I moved the fuel float. 3 hours

04/02/2016

My mate Al had checked the fuel gauge while it was out of the car months ago so he was confident that swapping the cables over on the rear of the gauge would solve the fuel gauge problem and as he had some spare time he called in to check the circuits before swapping the connections (which necessitated the removal of the steering column cowl and binnacle), he was perfectly correct, the gauge worked when this was done, thanks Al.

I re fitted the fuel tank sender unit then rubbed down the radiator top and painted it black. I then realised that I had not fitted the windscreen washer pipes to the jets so I had to remove the windscreen wipers, jet blocks and the air intake cover. I made up some copper pipes which I bent so that they would clear the plenum chamber when fitted to the washer jet blocks, araldited them into the blocks, fitted washer tube to them then refitted the vent cover and jet blocks (threading the washer tube through the plenum chamber into the engine compartment) then after using sealant all the parts were re assembled and the wiper arms refitted.

As I had decided to see how the original number plates with the raised digits looked on the car before deciding whether to buy new aluminium pressed items I cleaned them and gave the digits 2 coats of silver paint. Emma & Mike The Cake offered to paint the plates black so I gladly handed them over to them to do so. I hate painting! 5 hours

05/02/2016

As all control cables and wiring was now in place through the bulkhead I was able to blank off the holes that are not used with blind grommets (mainly duplicated holes for LHD cars) and also use sealant were necessary. I then cleared the interior of most of the rubbish, spare parts and odd fittings, cleaned the floor and fitted the various blanking grommets in the floor pans. Next I retrieved the broken radio facia, glove box front and glove box compartment from my shed. I glued the broken sections of the radio facia and the one side of the glove box door frame with Araldite. 2.5 hours

Total 443.5 hours

24/05/2016

I had taken the Vignale to the Cardiff City Stadium Show on 22/05/16 and the car ran well although I had to use plenty of choke to get it to move. Today the new Weber arrived and after making the alterations required to the throttle linkage I started the engine and after a few "tweaks" and setting the ignition timing the engine ran well, on a test drive I still found that I had to use a bit of choke to gain maximum power/acceleration, but the car is much more useable now and I can tune it better when the engine is run in.

1 hour

27/05/2016

Today I used my TRAKRITE to set the toe in/out of the front wheels. I then centralised the steering wheel and fitted rubber mats. I also tried to get the carburettor tuned in better, but couldn't so larger jets are on order.

1.5 hours

29/05/2016

After experiencing the loss of 3 of the 4 gear box flange to propshaft bolts as I entered the Porthkerry Classic Car Show (fixed at the show courtesy of Al going home to get me some bolts and nuts) I spent half an hour fitting new bolts (not the genuine set bolts, they are on order – Triumph Stag items) that were longer and protruding 3/16" through the nyloc nuts!

8 hours/month 0.5 hours

18/06/2016

With bad rain forecast for tomorrow's show at Margam Park I decided that I would have to have a look at the slow/stop windscreen wipers. After disconnecting the rack from the motor and with the wiper arms removed the rack felt quite smooth so I discounted this as the problem. I removed the motor and stripped it down, the windings in the body looked like they had seen better days so I swapped the body of a Herald 13/60 motor with the Vignale one, I couldn't use the armature as the gearing is different, but I hoped that with the better windings and brush assembly that the wipers would work better. After assembling the motor and altering the various connections I fitted it to the car and found that it was marginally better but not perfect. I then turned my attention to the tension of the springs on the wiper arms and after experimenting with various springs from my spare parts collection I had wipers that worked well on a dry screen, time will tell how they work in the wet over a period of time.

2.5 hours

26/11/2016

So, after taking the Vignale to a load of local shows and with only 2 slight mishaps (propshaft nuts slackened off on the way to one show, rectified by fitting thinner nyloc nuts and the

brand new radiator cap failing and causing coolant loss coming home from another show) and covering just over 500 miles am I pleased? You bet I am!

Today I torque down the cylinder head, re set the valve clearances, changed the engine oil and filter and replaced a heater hose (another item bought new earlier in the year) which was already splitting/perishing).

5 hours/month 2.5 hours

11/02/2017

After jacking up the car and supporting the rear chassis legs on stands I removed the prop shaft. Not knowing what size UJ's were fitted I removed the 2 to find that they were the same as my TR4A's drive shafts as I had one (only one worse luck) spare. The old ones didn't seem to be in bad condition so I don't expect the slight noise that I had detected in the drive train to be cured when the prop is re installed, but at least I will have eliminated the UJ's. While under the car I gave all the rear leaf spring fittings a good spray of release oil.

1 hour

18/02/2017

After fitting the new UJ's to the prop shaft I re installed it using new nyloc nuts. I then removed the rear O/S leaf spring, cleaned all the fittings up (which were in amazingly good condition) and gave them a coat of black paint.

3 hours

24/02/2017

As the front leaf spring bushes are not available I had bought some poly bushes with steel sleeves that I hoped would fit. The outer diameter was correct for the eye in the leaf spring, but the sleeves had too large an internal diameter for the pin, also the bushes were moulded with flanges that would not pass through the spring eye. To resolve this I removed the inner sleeve, cut the bush in half and pressed them into the leaf spring eye from both sides. I was lucky that I had some TR4A trunnion sleeves that were the correct length of the bush, were the correct inside diameter for the pin and with plenty of oil and the help of my vice I was able to press it into the sleeve that came with the bush, a perfect fit! I then fitted the O/S leaf spring using TR4 rear leaf spring bushes for the rear spring eye. With an hour left I was the able to remove the N/S leaf spring, clean and paint the brackets and make the same modification to the front bush.

7 hours/month 4 hours

04/03/2017

With the weather forecast predicting a dry morning I spent a couple of hours fitting the new N/S leaf spring with new bushes etc. With the road wheels back on I touched up all the areas

that I had worked on with Waxoil under seal before lowering the car to the ground. The car “sat” exactly the same as it had with the old springs, but at least now I can be sure that it is supposed to sit like it does and that the rear springs are not going to break.

2 hours

Total 551 hours

Engine after first start up.

AFTER 29 YEARS AND WITH AN ENGINE , GEARBOX AND CLUTCH PUT TOGETHER FROM VARIOUS MODELS OF CARS eg THE CLUTCH IS A COMBINATION OF TR4 & TR2 COMPONENTS IT STARTED AS SOON AS I CONNECTED THE LT CIRCUIT AFTER TURNING THE ENGINE OVER TO BUILD UP OIL PRESSURE - FANTASTIC. IT SOUNDS A BIT ROUGH AS IT HAS A STRAIGHT THROUGH EXHAUST AT THE MOMENT SO I TURNED THE SOUND RIGHT DOWN.

Control Box Connections For Alternator

Holes drilled for Side lights and Indicators

Front Lights in Place and Functioning