

Rufus - Chassis Restoration/Refurbishment:

Introduction:

For me the chassis is one of the first items to be restored as it is then a good place to store all the other components as they are refurbished. A bonus is that you can watch the car coming together which is very encouraging.

Modifications:

If any chassis modifications are required then it makes sense to carry them out before the restoration process begins. I limited my chassis modifications to the fitting of short running boards (footsteps) that are secured to existing body to chassis fixings.

One thing that bugs me with the TA chassis is the sharp corners on all the brackets. I rounded them all off prior to starting the chassis renovation.



Just some of the brackets that had the sharp corners rounded off

Note.

It should be born in mind that cutting sections off the chassis, or adding new parts by welding could result in the loss of Historic Vehicle Status and the issue of a new VIN and a 'Q' Plate Registration by the DVLA. Any additions should therefore, whenever possible, be by bolting rather than welding.

Chassis repairs:

Whilst the chassis looked to be in quite good condition there was one exception, the left hand front engine mounting had broken at some time in the past and been badly welded, as well as welded out of line. All the original mounting holes had then been slotted to get the mountings to fit. I carefully ground the whole bracket off** with one of my trusty angle grinders fitted with a stainless steel slitting blade. That took around an hours work. Full details of the engine mounting replacement is in a related article

Note.

*** Although the DVLA rules state that any chassis modifications put your Historic Vehicle Status and VIN at risk you are nevertheless allowed to carry out chassis repairs; this is only sensible otherwise everyone who*

fitted a new cill or body panel to a monocoque classic car would presumably have to give up their Historic Vehicle Status and submit their car for the latest IVA Test.

Restoring the chassis:

If it's really bad and/or full of nooks and crannies it pays to get the chassis shot/abrasive blasted. You really need to go to a company who specialise in classic cars as a lot of companies use too coarse a medium and you might get your chassis back riddled with holes, or a very rough (as opposed to smooth) finish.

There are no suitable abrasive blasters near me and as the chassis on a TA is of box section and fairly easily accessible for de-rusting etc. I decided to refurbish it myself using a knotted wire rope brush in an angle grinder for most of the de-rusting and paint stripping. At six positions where the chassis members meet in a sharp (tight) corner and inside the small brackets at the rear of the chassis that hold the axle rebound straps there is no access for an angle grinder, so I used paint stripper and scrapers followed by a selection of wire brushes in an electric drill.

For final finishing I use a blue 'poly-strip' pad. These are the best things I have found for cleaning up metal. The poly-strip is shown on the right of the photo below; they cost around £3 each and last a long time. The work on the chassis was carried out with just one poly-strip pad, but it is now on its last legs.



Useful items when restoring a chassis.

Painting the chassis:

With a pristine chassis mounted on blocks I normally give it a couple of coats of red oxide primer followed by chassis black, although recently I have been using 'Palatine Agricultural Black Gloss'. The alternative is to have the chassis galvanised.

After preparing the chassis I gave it a clean down with white spirit** followed by a coat of Carboxide red oxide. The chassis was then moved back under my car port for the new engine mounting brackets to be fabricated and fitted.

Note.

*** As the white spirit evaporates it reduces the temperature of the chassis so I always leave it at least 15 minutes before painting.*



Nearly finished, just some sharp corners left.

Note.

I do dirty jobs like this down the bottom of the garden away from senior managements washing line.

When the repairs etc. are finally finished the whole chassis will be given a rub down with a coarse Scotch pad and then another wipe down with white spirit followed by another coat of Carboxide and two coats of Palatine Agricultural Black Gloss. 'I don't like powder coating on a chassis'!

Chassis change:

An original style unmodified chassis is acceptable to the DVLA and provided you use the same VIN (Vehicle Identification Number) you do not even have to report the change. If using a different chassis I normally only take the parts off of the old chassis immediately prior to refurbishing them; once refurbished they are fitted to the new chassis immediately.

Continuing the build:

Once the chassis is ready I refurbish and replace the parts, normally starting with the rear axle so the chassis is once again mobile and you can move it like a wheel barrow.

Summary:

The chassis is an important part of the car. A good restoration will set the standard for the rest of the build.

The time spent on the chassis so far is approximately one hour rounding off the brackets, 25 hours de-rusting and painting the first coat of Carboxide and 1-1/2 hours on fabricating a new left hand front engine mounting.

I still have to weld on the left hand front engine bracket and then apply the second coat of Carboxide and two coats of Palatine agricultural Black Gloss. A total of approximately 8 hours more work.