

## AUSTIN HEALEY SPRITE MKI (FROG EYE) REBUILD CARRIED OUT DURING THE 1990s



The car was owned by a friend who had it stored for a few years, when I first looked at it, the bonnet off and stored separate, the shell was complete with a free turning engine that looked correct, the doors opened and shut ok, the floor looked to consist of one patch on top of another, the boxes that hold the quarter elliptic rear springs were well rotted though still holding together, a bump in the area of the rear number plate had caused the rear boot section to bulge, the bonnet was solid but slightly miss shaped due to rot in the underside stiffening.



Once the car was in the workshop and the mechanical parts removed, the extent of the work required



became clearer, in reality the lower 6" of the body were needing replacement with the exception of the centre tunnel.

To the right is a view looking at the underside of the foot well, it had large flat plates tacked / bolted underneath and on top to form a sandwich with the fuel and brake pipes trapped in the middle.



The bare shell was lifted up to a working height and supported on strong trestles that were set level, stiffening box sections were fitted between the bulkhead and upper rear body to keep things in line these were brazed in place, the doors were removed and more supports put in between the A and B posts. The car came with new outer sills, new

floor pans, inner sills and rear suspension spring box mounts were purchased, along with the stiffening sections that go inside on top of the floor.



Work started on the near side, cutting out the sill and the floor, cutting away the bottom of the suspension box (the rest







could be removed later) The off side was left in tact at this stage as it was the strongest side. The bottom edges of the A and B posts and bulkheads were all cleaned up, the new floor was tacked in place followed by the inner and outer sills, the remains of the rear suspension box was removed, the new rear spring mounting box was positioned on e the new floor and welded in place at the bottom, a repair section was made up and fitted into the

rear bulkhead to meet up with the new sections, finally the stiffening sections were added and all joints fully welded, the picture to the left shows the almost completed near side spring box, while the picture below shows the new floor.



Once the near side was completed the same procedure was carried out on the off side, the picture to the right shows where the new floor and sill

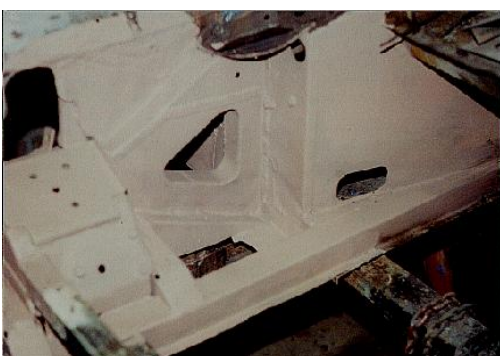
met up with what remained of the front wheel arch and bulkhead.



Small repair sections were made up and welded in where required, once all was fully welded top and bottom the stays were removed, the floor of the boot area was good apart from the lower rear section, as it is so difficult to access



we opted to cut out the old lower floor and replace it with a new panel -- removing all the old under seal was a struggle to say the least.



The inner wing sections had rotted in the triangle sections where road dirt had collected, rotten bits were cut out and replaced, the open area was also plated in to form a box section. The underside of the front cross member had been

dented in at sometime in its life, part of the flat under section was cut out and a new piece welded in.

The doors were now adjusted to give the best fitting possible and the joints on the doors were braised up and ground off as required to give a straight alignment of doors. Once we were happy with the fit of the original doors, they were removed and new skins fitted.

The battery area was cleaned and painted, some repair was needed to one corner of battery box.



The rear wheel arches were repaired by welding in small sections of steel plate to re-form the correct curve, the front wheel arches were replaced with new ones.

The dent in the rear was pushed out from the inside but the top section was still distorted and we had to resort to cutting a slot in one side, brazing lugs on and pulling the joint together, welding it together again before removing the pulling lugs and filling where required, a template was made

up to the original good side to ensure the repaired side matched.

The front suspension and brake parts were all cleaned and overhauled as required, new steering rack, track rod ends, kingpins, bottom wishbone plates, all bushes, brake drums, shoes, cylinders and hoses were all fitted. The rear axle had new bearings and seals, new quarter elliptic leaf springs, bushes and upper link arms, with all these new bits in place the car was on four wheels again and measurements were taken to ensure the body was all in line as it should be.

The bonnet was stripped of all its old paint and under seal, any rusted areas were shot blasted, the rotted stiffening pieces were replaced and the bonnet tried on the car to make sure all lined up as it should, the beaded edges on the wing seams had rusted so the joint was ground out, new beads were purchased and trimmed to fit, the ground out joints were filled with body solder and the new bead set in it, this gave quite an acceptable repair without separating the wing from the bonnet.

The engine had always been a known good runner but while it was out the engine and gearbox were separated and cleaned, treated to a new clutch, oil seals, timing chain, valves ground in etc, before being painted in the usual green and refitted on new mounts, the radiator was overhauled by a specialist, a new fuel tank and pipes were fitted, along with brake pipes and master cylinder.



The bodywork was all stripped to bare metal and small amounts of filler used where repairs had been carried out, though all in all only one small quarter litre pot was used. The whole shell was etch primed and all the fittings tried and holes drilled as required, the engine bay had been finished in old English white polyurethane paint prior to fitting the engine, as had the inside of the shell, so all the wiring etc could be fitted, at this point the car was complete enough to be



road legal so a set of new tyres were fitted and it was taken for MOT, which it passed with no issues, this gave us chance to put a few miles on the clock and sort out any mechanical issues before its final painting and trim.



The following spring a fresh start was made to finish the car,

All fittings removed from main body and all outer paint work rubbed down with wet and dry, four thick coats of high build primer and further rubbing, stopper applied to low spots, followed by further priming and rubbing down, lots of time spent in areas of wing beads etc.

Continued rubbing down with wet and dry, four coats of cellulose gloss applied. once it was dry all the light fittings put back on, grill inner duct painted black, then new grill fitted.

The heater element stripped out of old case, cleaned and tested for leaks, replacement case cleaned and painted, all assembled and new clips fitted etc, this was fitted onto the car, wheel valve stripped cleaned and fitted to engine block, all hoses connected etc. the screen vents cleaned and painted, new flexes obtained and fitted up behind dash.

A new carpet set was fitted, seat carriers bolted through in foot wells.

Leather cloth sections made up and fitted to inner sills, B posts, front foot well sides and tailored to fit wheel arches etc.

The hood frame was cleaned and repainted, a new hood was purchased along with new clips etc and all fitted in time for its second MOT.

