



FIGARO PROJECT PART 8 UNEXPECTED RUST REPAIRS


Investigating an odd-looking previous repair under the nearside sill reveals fibreglass matting. There is no other option but to peel it off and discover what horrors lurk beneath. REPORT: SIMON GOLDSWORTHY

Despite being built in the 1990s, Figaros can rust as well as the cars of the 1950s from which they draw inspiration. To some extent that's because the Figaro was only sold in the Japanese market, and rustproofing tends to be less extensive there for a number of reasons.

The section of the sill that folds under the car and joins to a flange on the floorpan is particularly vulnerable, and our car has been repaired in these areas in the past. Poking and prodding all along the driver's side showed nothing but solid steel, and it was the same at the back end of the passenger side. However, something didn't look right at the front on the nearside, with a curious gap between the front of the panel and the bottom of the front bulkhead/inner wheelarch section which could allow moisture and muck into the sill. Clearly we could not ignore this, and so the fibreglass was chipped and peeled away to reveal a rather large hole in the metal beneath.

Examining the remains of the original panels showed how they should have fitted together. Essentially the sill structure has

three vertical faces – the inner one that you can feel inside the car, a central one that is hidden from view, and the outer sill that you can see from outside the car. The bottom of the central panel is folded inwards through 90° to give a horizontal section that leads to the inner sill/floorpan, then folded back down to the vertical to make a flange that is spot welded to them. The outer sill is also folded through 90° and goes across to meet the central panel, but it meets this about 1/8in up from the horizontal section at the bottom. It then folds down by this 1/8in and across again by about an inch to make what looks like a strengthening rib along the bottom of the whole composition.

The only way to repair this properly was to fabricate two sections, firstly joining the central panel to the inner sill/floorpan, then a second panel to join the outer sill and central panel together. Our thanks go to Alan Denne for carrying out this work and making the finished article look as good as new, but even more crucially making it structurally sound and ready to face the next three decades on Britain's roads. 



1 This was the curious gap under the sill just behind the nearside front wheel which was spotted by the guys at Rustbuster and aroused our curiosity when we visited them. The rest of both sills were clearly solid metal, but this area somehow just seemed wrong.



2 The first job was to clean off the underseal that had been applied to disguise the 'repair.' We would later have to remove the stainless trim along the side of the sill too, but we didn't know that yet. Fortunately it popped off the plastic retaining lugs without issue.



3 It didn't take long for us to get that sinking feeling as the first strands of fibreglass matting were revealed. We can only hope that a previous owner did not pay a professional for this work and get ripped off. On the other hand, that means they must have bodged it themselves...



4 Pulling off the fibreglass revealed this hole in the metal. The sill structure was described in the introduction – that large hole is in the horizontal section of the central panel where it leads inwards to the inner sill/floorpan before folding down to a flange and being spot welded to them.



5 And this was the full extent of the missing metal after Alan had cut ruthlessly back to sound metal – this saw a large chunk of the outer sill cut away too.



6 Fortunately, the corrosion was all at the bottom of the panels, and the rest of the structure was in perfect condition, giving Alan something to weld to. Here you can see the inner sill on the right and the outer sill curving under on the left.



7 Further forward, the bottom of the inner wheelarch was unaffected. Here the wheelarch liner is folded out of the way to allow inspection. The front wings are plastic, so the bottom of that could also be eased out of the way.



8 Finally moving on to the reconstruction stage, Alan first made the repair section for the central panel, punching holes on the flange for plug welding to the floor.



9 With the flange clamped in place, the rest of the repair section could be tweaked until it was resting snugly against the remains of the original.



10 There was then sufficient access to weld the old and new panels together, before moving on to the plug welds and then rustproofing hidden areas.



11 Next task was to make up a repair section for the outer sill. Here Alan is using a blunted chisel to form the step at the bottom that will wrap around the 90° bend at the bottom of the central panel.



12 This is that repair section being offered up for fit. The weld along the outside will be hidden behind the stainless steel trim piece. The dogleg from step 11 makes a strengthening rib under the sill.



13 And here it is, welded into position and requiring final finishing before being protected against rust. Note the plug welds along the bottom of the rib joining the two repair sections together.