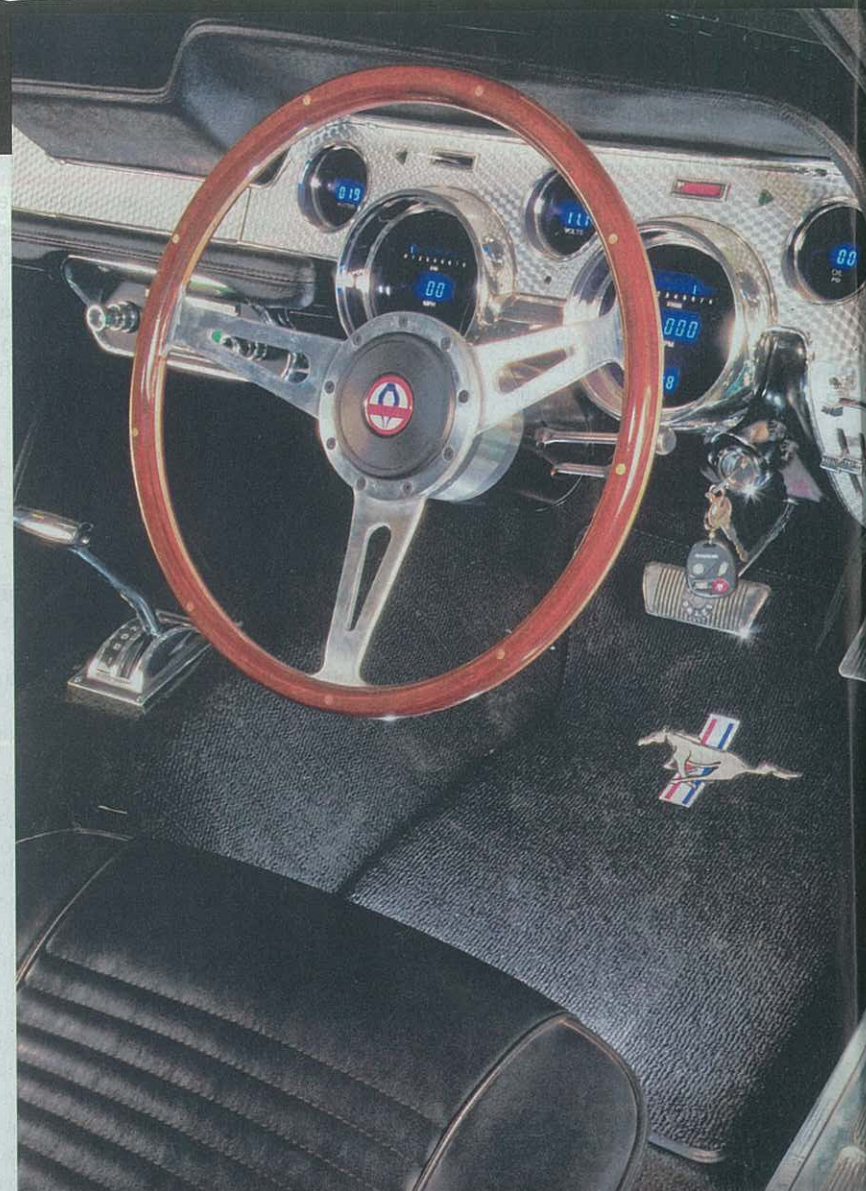


Beneath immaculate carpet can lurk a rusted-out floor pan. Fixing it the right way is easy if you follow these simple steps.



FLOOR PLANNED

Exposed to the harshest conditions, car floors can suffer and require careful repair

There's nothing quite like turning the key in your finished project and going for that first drive. All of the jobs during a restoration are important in reaching that point but fixing a rusted floor pan is fundamental to most projects.

While the job calls for reasonable skills it's not as difficult to tackle as you may think. Leo, owner of The Muscle Car Factory, in Braeside, Vic., has been turning out show quality cars for years and agreed to show us a few of his tricks for getting the best results.

As Leo explains, there are basically two approaches to fixing a rusty floor pan. If it's bad enough over a wide area you can opt to fit a full one-piece floor pan. This is obviously a bigger job but there's no problem with joins showing around the borders of patch panels. However, if only selected areas are irretrievably rusted, these alone can be replaced as is the case in the Mustang shown here.

How the job is done will determine how long the finished result will last. One of the things people do wrong, in Leo's opinion, is that they cut away the rusted area and then overlap the edges of the new metal with the edge of the factory floor. This duplicates problems that occurred in the factory in the first place.

Most cars from this era have multiple layers of metal sandwiched together at the sill and other places. The problem is that wherever such sandwiched construction is used, moisture gets in and rust is inevitable. Although modern cars still use this assembly method, the bodies are fully dipped on the production line and such areas are much better protected. It's true that car makers of yesteryear used red oxide to resist corrosion but the application of it wasn't always as thorough as it could have been.

Corrosion in sandwiched areas is the result and usually shows up as 'swelling' between the sheets of metal. Overlapping the edges of a patch panel on top of the original metal sets up your repaired section for the same problem.

Butt welding the repair section in place flush with the original floor is the better way of doing the job. Here's how The Muscle Car Factory does it...



1

With rusted floors it's often very difficult to determine where the factory spot welds are. The solution is to cut away the rusted metal in sections along the edges of the cross members and chassis rails. Once that's done you can see where the spot welds are. Sticking a screwdriver in between the sheets to separate them will also help reveal the weld points.



2

Leo never uses an air chisel. He doesn't even own one. He says it's always best to unpick the factory work. Sometimes people drill out the factory spot welds (previous shot) but he feels that the resulting holes are too big. It's better to grind away the top section of the weld in the damaged panel until the backing metal is exposed and the panel pops off.



3

While replacement panels are close to the shape required they're never exact. They have to be pushed firmly into place and held there while welded. This is done by temporarily fixing them in place with Tek screws. Trim the size of the replacement panel to overlap the original metal by about 15 to 20 millimetres.



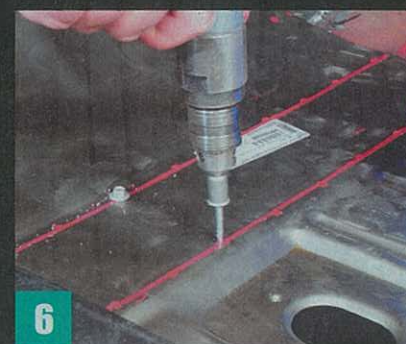
4

Place a couple of marks on the floor pan aligned with the flanges of the chassis rails as shown so that the location of these can be determined when the panel is set in place.



5

Join the marks on the floor pan using a straight edge as shown. This will allow you to position your screws accurately without being able to see the chassis rails and cross members.



6

Place marks for your screws about an inch and a half apart along the lines and fit a screw in every second position. Press the replacement panel into firm contact with the underlying metal as the screws are tightened.



7

The beauty of holding the replacement section in place with screws is that it can easily be removed at any time during the job and put back in exactly the same position. When the floor pan is removed it's actually a very good time to repair cross members and chassis rails, which are otherwise very difficult to get at.