



8

Replacement panels like this will have light oil residue on them and probably other contaminants too. So, they should be thoroughly cleaned with a suitable product like this silicon remover from Spies Hecker.



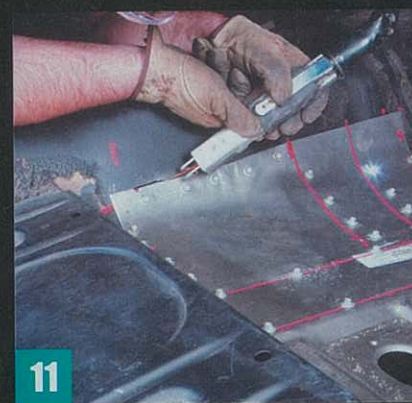
9

Areas on the chassis and replacement panel that you won't be able to reach when the panel is welded in should be given a couple of coats of etch primer or zinc rich paint to increase long-term corrosion resistance.



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As more of the panel is firmly fixed to the metal underneath, more difficult to fit sections can be altered to match the basic contours of the floor. Leo is using a panel beating dolly here but any tool that will do the job can be pressed into service for this.



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The air-powered hacksaw is Leo's favourite tool. Here, he's using it to make a cut that follows the edge of the replacement panel as shown. The gap left by the hacksaw is about a millimetre wide, which is about perfect for welding.



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Of course you can't start a cut through the metal with a hack saw. An air grinder with an extremely thin wheel is used to start the cuts. Note how the metal next to the cuts is curled up to keep it out of the way.



13



13a

To leave a weld that doesn't show, both the new and old metal have to be flush. Initially, the replacement panel will be higher than the surrounding original metal. Tap it down with a panel hammer. If you go too far, or it's low for some other reason, prise it up level with a screwdriver (a cheap one you don't care about).



15

The first stage is simply to tack the panel in place. Work in sections. Cut about six inches, remove the fixing screws, bend the underlying material away from the weld as described in the previous shot and place your tacks about an inch apart like this.



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The strip of original metal created when you make your cut has to be bent out of the way or you'll simply be re-welding it back in place. So, remove the screws fastening it in place and bend it out of the way before welding as shown.



16

To weld the replacement panel to the cross member and chassis rail flanges you have to drill through the fresh metal. Drill out the marks between the screws first. When the flange is exposed make a 'puddle weld' just big enough to cover the hole you drilled. Leo says that if your technique is good enough it will look like a factory spot weld after painting. Before painting, however, be sure to thoroughly clean up your welds with a wire brush or they will corrode.



17

Of course, after you've drilled and welded at the points between fixing screws you'll have to do the same at the points at which screws were located. It's not much different except that the underlying flanges will also have holes in them that have to be filled. So, a slightly larger drill is used to make the holes in the replacement panel larger than those in the flanges.



17a



18

Here's a finished example. It's the side opposite to the one we photographed and as you can see, the welds look like they're from the factory. Keep in mind that Leo cleans up the edge welds on the underside of the car so you simply can't see them. This side will be covered by carpet so leaving them un-ground doesn't matter visually and results in a stronger joint. Note that on the panel we photographed the edge against the sill is turned upwards. When the replacement panels arrive this edge is turned downwards. Leo turns them up like this because that's how the original Mustang floor pans were made.

To recap, butt welding the edges like this after cutting with a hacksaw creates the neatest job possible for any repair requiring a replacement section of sheet metal, not just floor pans. Additionally, it avoids corrosion due to the build up of trapped moisture.

It will be interesting to see how well modern fully-dipped bodies with sandwiched panel areas hold up against corrosion over the years. Although Leo has every kind of metal cutting tool including oxy and plasma, he insists the air hacksaw is the best tool to use for this kind of work.

Using the techniques shown will maximize the longevity of your repairs and make sure you're still driving your original classic well into the future.

You can reach The Muscle Car Factory on 03 9580 3548 or visit musclecarfactory.com.au.