Making the Quarter Fit

The Camaro's replacement rear quarter gives a good door gap on its first trial fit. At the tail-light opening, however, the inner panel stops short of where it needs to meet the outer skin. This week in the RiE-Store workshop, the challenge is to close that gap while keeping the body lines that already look right.

The outer quarter has already been off again to give access to the inner wheel arch. The dented metal around the arch has been straightened and sections let in where the lower edge had rusted away. Those repairs make it possible to concentrate on how the replacement panel fits the rest of the car.



The replacement quarter is trial-fitted against the door and wheel arch.

Offering up the rear light helps establish where the problem lies. Its outer edge follows the quarter reasonably well, but the inner metal stops the light from sitting far enough in. The replacement quarter differs from the original at this corner, though exactly which variant it was intended for remains uncertain. A scribed line marks roughly where the inner panel needs to come round to meet it.

With the door gap looking right, attention turns to the splice below the roof. The cut is made with the quarter in position, then the panel comes off again so the redundant strip of metal can be removed. Finding the spot welds matters here: the strip is still attached to the metal behind it and will not come away simply because its outer edge has been cut.

The exposed edges also show why there is no single way to attach the whole quarter. Where the welder can reach both sides of a flange, spot welds are an option. At the bracing behind the door striker, access is tighter, so the plan is to plug weld through holes in the outer panel. The joint below the roof will be welded edge to edge.



With the quarter removed, the splice line and underlying metal are exposed.

Back at the tail-light opening, releasing the old spot welds lets the inner section move towards the scribed line. A couple of tacks hold it while the quarter is offered up again. It is a trial fit in the most literal sense: the shape can be judged properly only once the parts are back together.

The revised corner follows the outer panel more closely. A small area still needs a piece of metal let in, and the deteriorated lamp plastics and hardened seals make the final light fit difficult to judge. The improvement is visible, even with those checks still to come.

Before the quarter is welded in permanently, it has to come off again to clean the mating edges. There is also heat to manage along the broad splice, where the plan is to work in spaced tacks to limit distortion. The door gap, the line into the boot lid and the curve along the side of the car all need to survive that work.



The quarter is clamped in place to check the join and body line.

The quarter ends the episode clamped in place for another check. We have a better fit around the lamp and a clearer plan for the remaining welds. The next step is to secure the panel without losing the lines established through all those trial fits.