

69 Dearborn Unibody (Undercarriage) Restoration Guide

This is an ongoing project of mine and just one section of a much larger project. It is a work in progress so it will hopefully be continually updated as we discover additional or new information and it is researched and accepted.

As always, if available, your car's individual original details should be documented and reproduced during its restoration. If your car lacks these details due to damage, repair, reconstruction or some other situation what follows is what is typically found on cars built at Dearborn during the 1969 production run.

By 1969 production, the Dearborn assembly plant, had been using what is being referred to as batch paint/primer to coat the undercarriage for many years on Mustang and Cougars. As we understand this was a mix of epoxy primer sealer and left over exterior paint. This mixture improved the sealing qualities of the product and saved dollars for the company. During 1969 production batch paint varied as would be expected with different amounts of this or that color, but normally it fell into a range of grays with green or blue tendencies. While batch colored undercarriages have been found to be the norm during 1969 Mustang production there are identifiable periods of time where they used a red oxide epoxy primer sealer in place of the batch color for some unknown reason.

Basic steps for a 1969 Dearborn built car are as follows.

- 1- The car was prepped with the doors and trunk lid. Just prior to exterior paint application the rear valance was hung in place and end caps were loosely (spaced rearward) installed so that they were painted with the rest of the body.
- 2- Batch paint was applied to the panels visible from directly under the unibody from the firewall rearward then red oxide epoxy sealer applied from (approximately) forward. From the firewall rearward (the undercarriage area) the paint was applied by jets mounted below the moving body while the bottom surfaces from the firewall forward were sprayed by hand by a worker standing below the body.

- 3- Some seams and the seat belt anchors were chalked after painting while other areas were done before. Some were applied out of a chalking gun and left as applied, while areas such as quarter or floor drops and the seat belt points were applied out of a gun then smeared with a brush or thinner dipped rag. Sound deadener in the rear wheel wells and surrounding frame and floor was also applied.
- 4- Interior color is applied next to the A pillars and the interior surface of the doors below the door panel depending on interior code.
- 5- Exterior color was then applied with some overspray flowing onto the undercarriage. The high volume, high pressure spray guns of the period produced a lot of overspray and direct application onto the floor panels and features that hung down from the floor and faced the outside surfaces of the body. In the rear wheel wells the surfaces received a nice coat of paint in most cases and a fair amount often found its way onto the exposed rear frame rail that is visible from the wheel well and lighter amounts onto panels and brackets inward.
- 6- Next the engine compartment paint is applied. As the drawings and pictures show, on the wheel side, the black would often fade around the front edge of the spring pocket but it varied while body color was typically visible at or behind the shock tower pocket. The area of coverage of the body color and black vary but typically falls into a range.
- 7- Next the pinch weld was blacked out. The soft (unmasked) outer edge, along the bottom of the rocker and quarter panel extended outward approximately two to two and one half inches. The overspray from this application would again cover some of the undercarriage as the majority of the spray pattern would flow paint onto those closer panels and surfaces while overspray continued inward with a lighter indirect misting. The more a section of the pan hung down, the more paint/black out it received. The amount of overspray generally would be less the distance inward towards the center of the body than the body color traveled as it was applied with less pressure and tighter pattern.

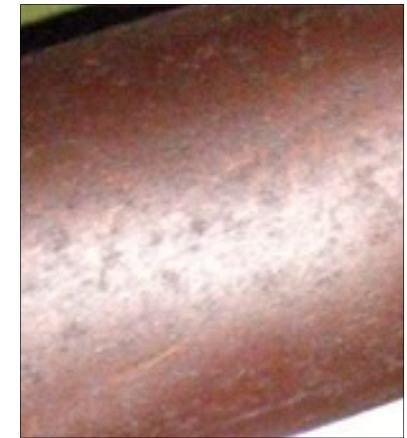
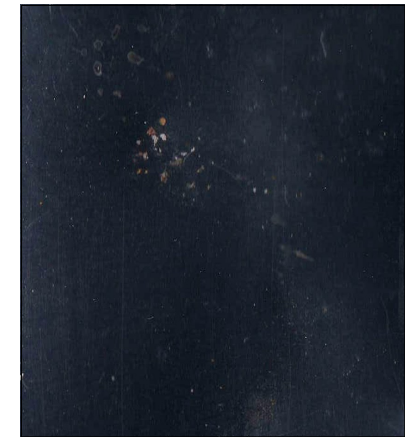
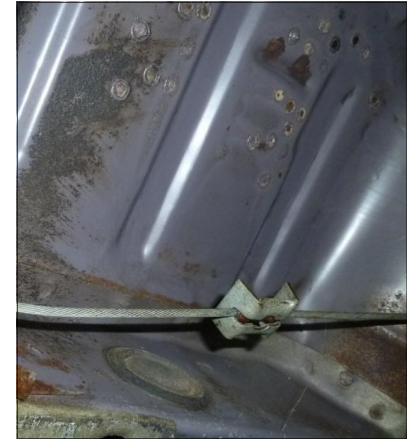
8– After the front fenders (car assembly basically finished) were installed the front wheel well area was sprayed with sound deadener. Suspension and such already installed. This was typically applied over the inner fender panel, along the area of the fenders that meet the splash shields and up over the top of the fender. The top surface of the fender was not always completely coated. Pattern and coverage varied from car to car.

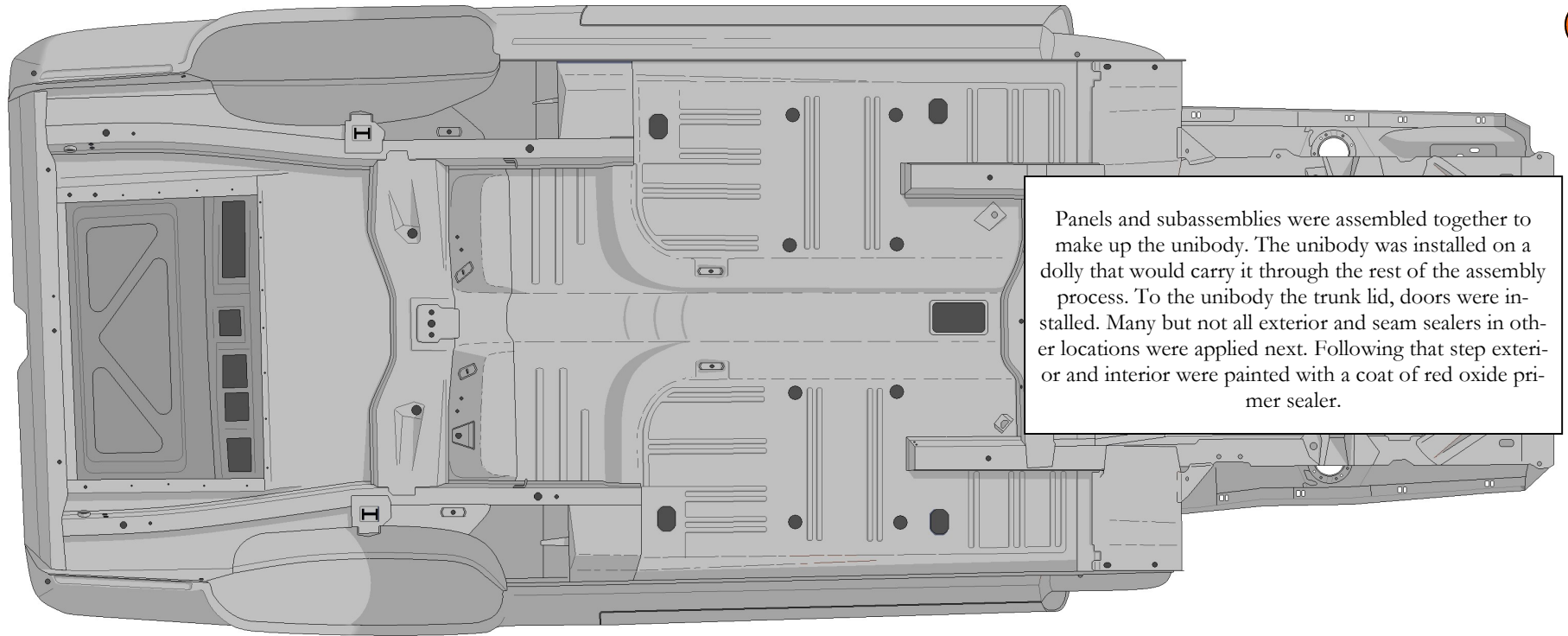
9– On certain car models once many of the parts were installed on the under sides of the vehicle, sound deadener was applied to the floor pans and over parts attached in the area sprayed. The parts attached at this time are best described as the car (under the car.) was completely assembled except for the driveline and exhaust so shadows were produced by the front frame rails, emergency brake cables, fuel and brake lines on the floor pans in the areas where sound deadener was applied. This application may have taken place with additional parts not being installed but for descriptive purposes I've chosen to describe it this way. The exact timing of this application may have been just prior to the body drop station in the assembly line.

Note: There are other identified sub patterns that have been identified during the production year related to floor colors, front wheel well finishes and others. Since they do not fall into the typical or normal category they are not included in this article since they might tempt some owners into creating cars that would stand out from others without historical documentation.

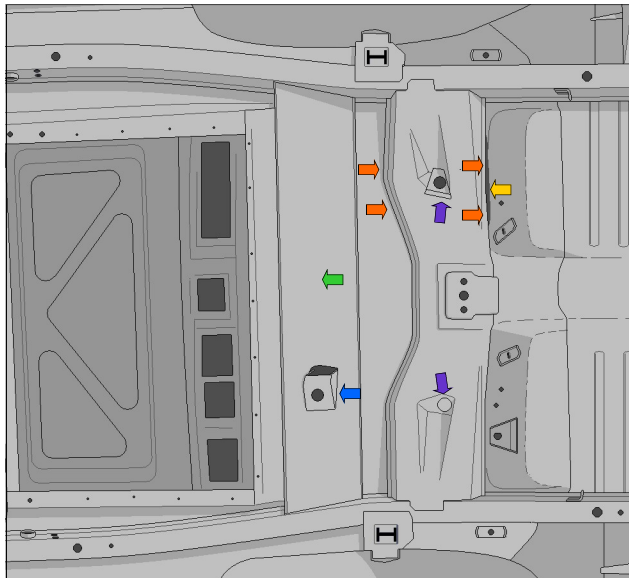
To the right are just a few examples to illustrate the wide variety of colors found of batch paint from 1969 Dearborn built Mustangs & Cougars.

In the later months of production the color of the batch paint applied to the floor panes (firewall rearward) varied greater than in earlier production. The bottom two examples reflect the ongoing change that continued into 1970 production.





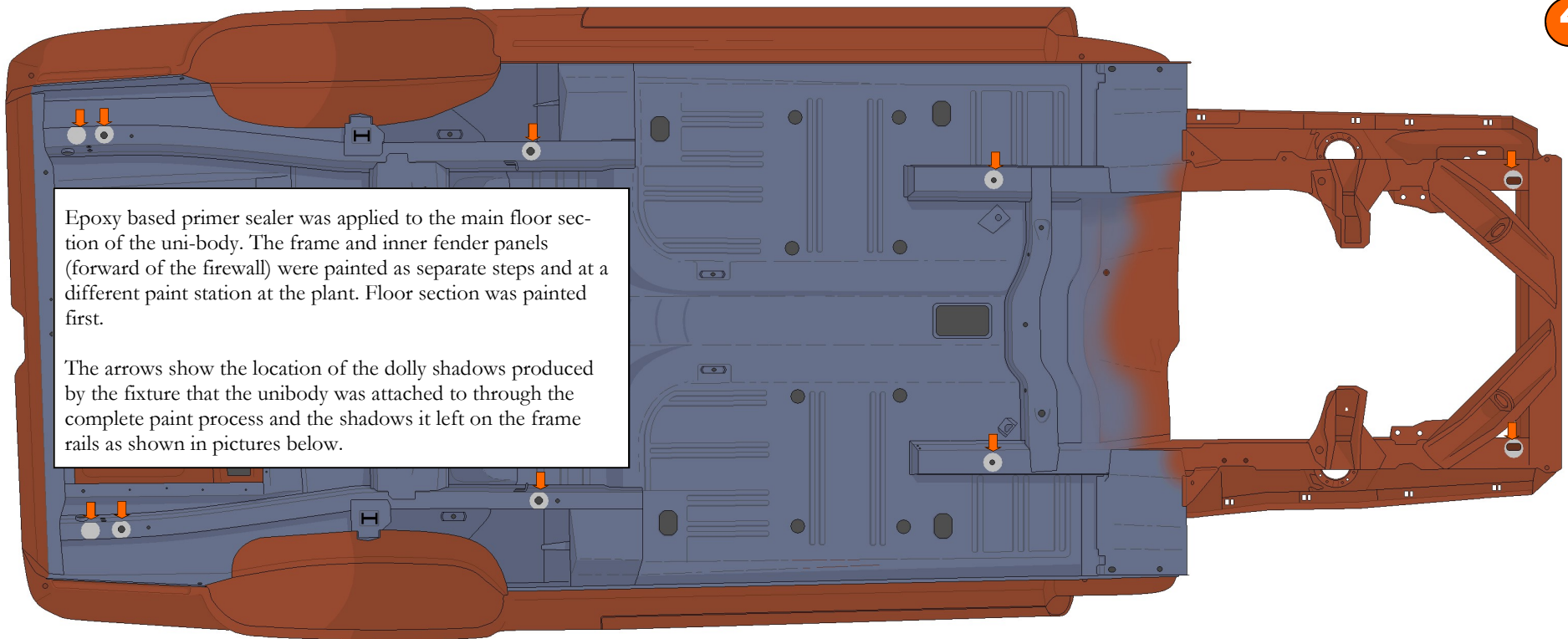
Panels and subassemblies were assembled together to make up the unibody. The unibody was installed on a dolly that would carry it through the rest of the assembly process. To the unibody the trunk lid, doors were installed. Many but not all exterior and seam sealers in other locations were applied next. Following that step exterior and interior were painted with a coat of red oxide primer sealer.



During the assembly of cars with the rear staggered shock feature support brackets (blue arrow) and panels (green arrow) were incorporated into the build of those unibodies. In addition the standard passenger side shock location was reinforced with a plate (purple arrow) and the unused drivers side shock mount hole was covered with a round plate to cover the opening (lower purple arrow)

Typically on Boss 302 & 429's received a group welds along the edge of the standard rear shock mount to the rear floor, spaced approximately two inches apart. Along and over the welds along the forward edge of the shock support (yellow arrow) as shown in the original example in the picture to the right.



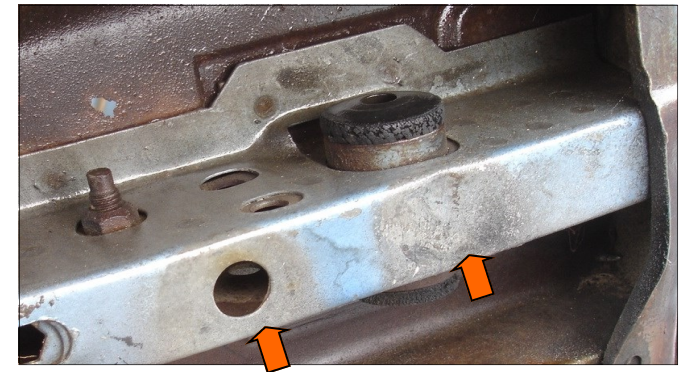
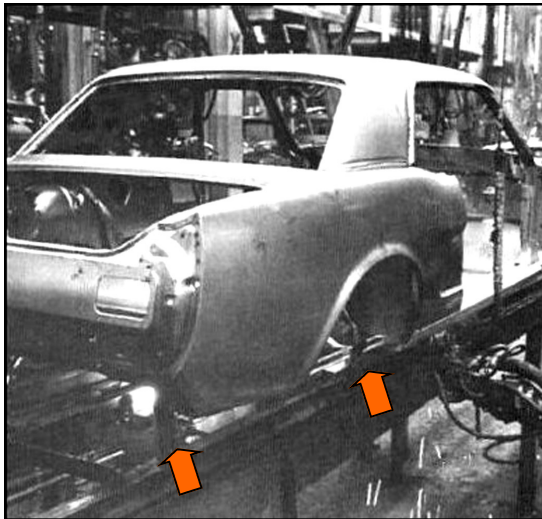


Epoxy based primer sealer was applied to the main floor section of the uni-body. The frame and inner fender panels (forward of the firewall) were painted as separate steps and at a different paint station at the plant. Floor section was painted first.

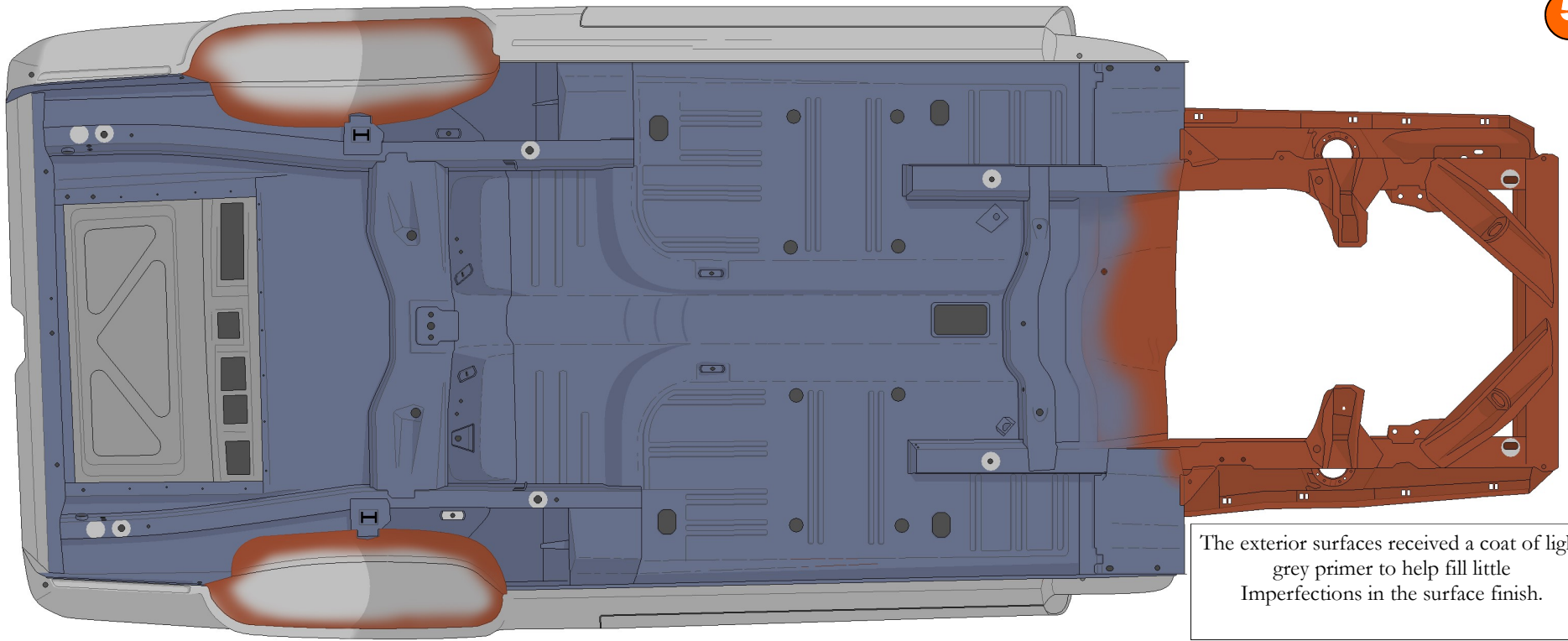
The arrows show the location of the dolly shadows produced by the fixture that the unibody was attached to through the complete paint process and the shadows it left on the frame rails as shown in pictures below.



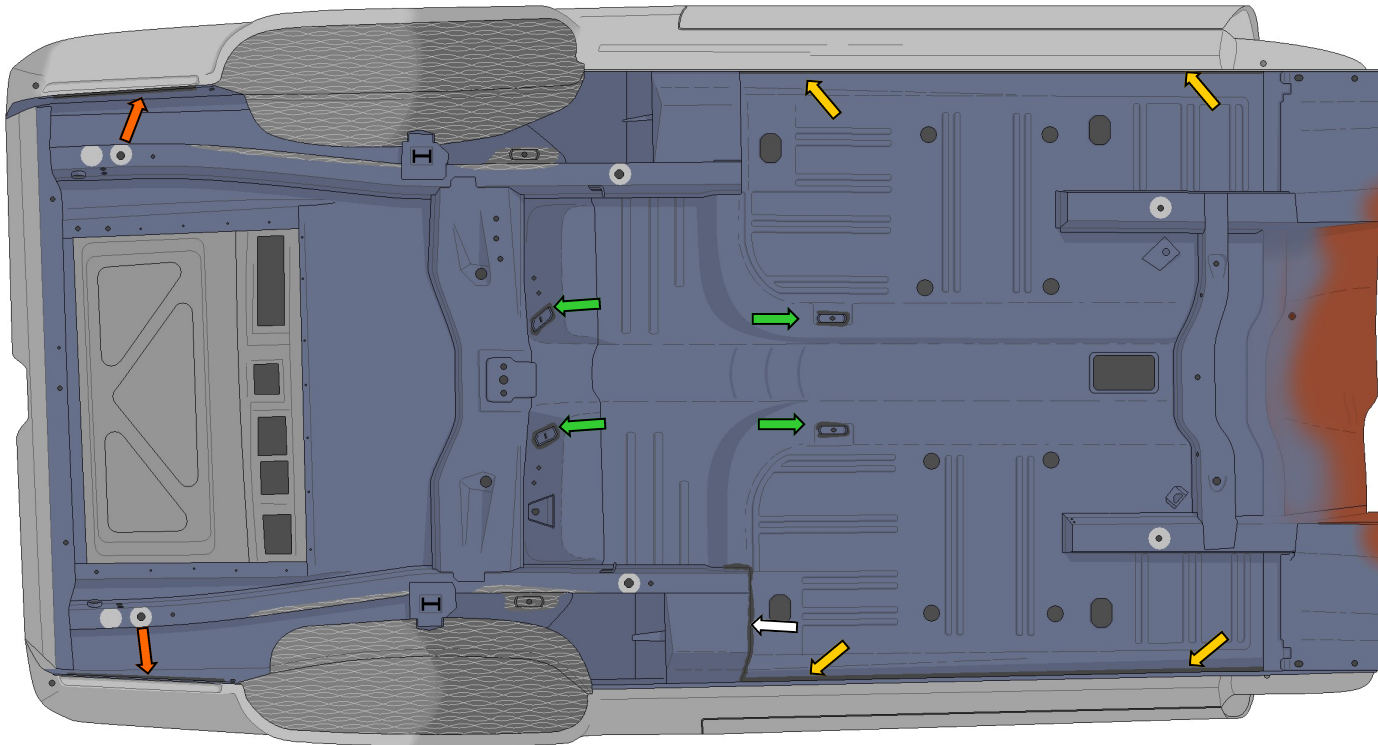
Main floor color can vary between a red oxide color and a primer sealer mixed with left over exterior colors producing a variety of different colors most often a dark gray look with, sometimes, metallic, or blue or green tint.



The rear most dolly stand had two attachment points to accommodate both Mustang and Cougar bodies. This left an additional shadow on both models. Above a Mustang



The exterior surfaces received a coat of light grey primer to help fill little Imperfections in the surface finish.



Seams are chalked. Determining if this step took place before or after body color is still being studied.

Yellow - Rocker panel. Along the inside edge. Application can continue along the front edge of the rear spring torque support. Some times the worker continued the sealant along the forward edge of the rear spring torque support (White arrow)

Green - Seat belt mounting points

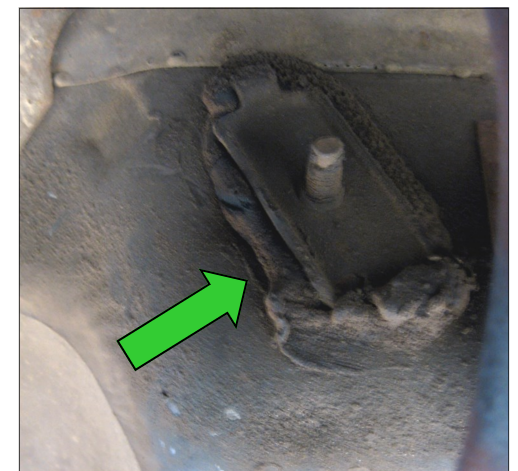
Orange - Trunk floor drop. Approx 1" wide strip along bottom of inside edge of the trunk drop/extension panel over the pinch weld spot welds



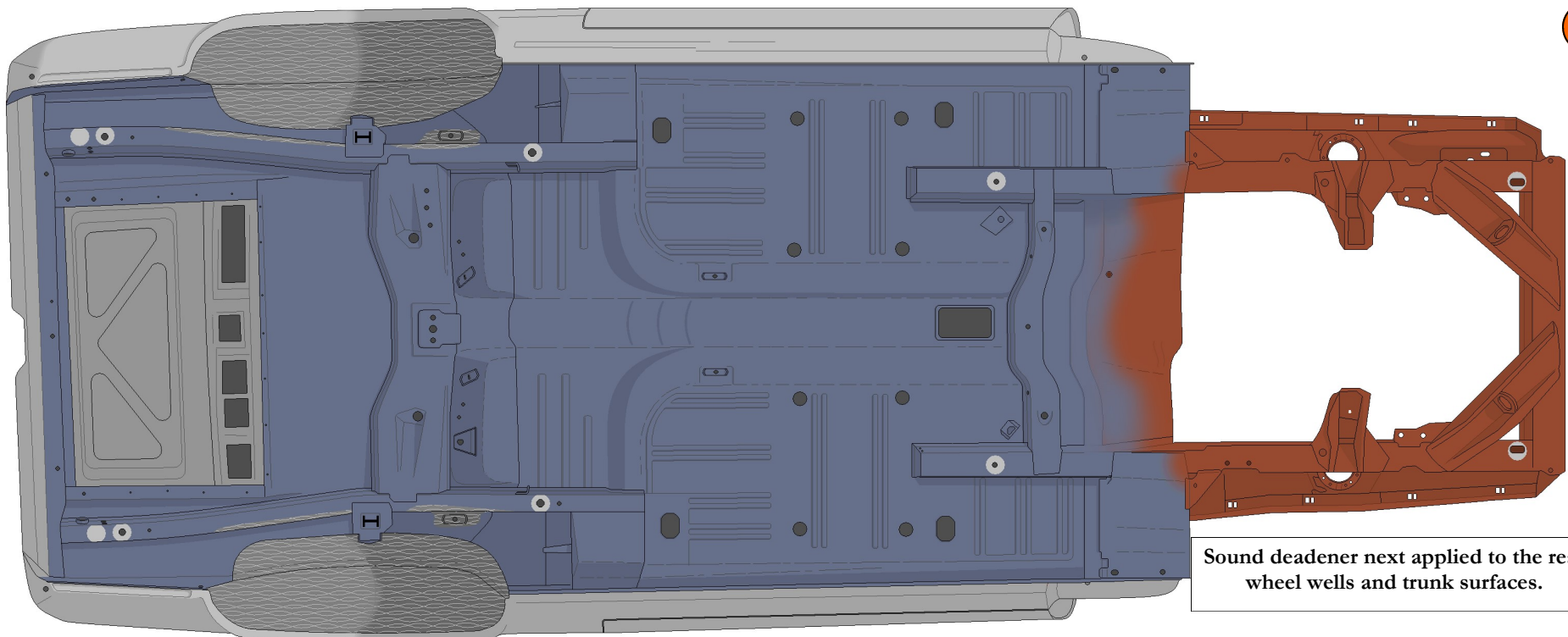
Rocker to main floor seam seal. Examples show this thin straight from the chalking applicator style as well as a examples where there was more product applied then wiped to spread out the coverage



Trunk drop sealant applied over the quarter panel and trunk drop pinch weld and often continues up along the edge behind the rear valance.



One example of the inner seat belt anchor bracket sealant



Sound deadener next applied to the rear wheel wells and trunk surfaces.



