

Sneak Preview!

The following Tech Article concerns just one small topic from a new publication we are currently working on, "How to Build a 1955 Street Machine." This book will cover the start-to-finish frame-off build-up of a 1955 Chevy Bel Air Sedan street machine with lots of neat, updated modifications. Its purpose will be to assist you in the modification and rebuild of your own Classic. Look for more articles in the near future, updating you on the progress of our '55. The book is due for publication sometime in early 1995. Stay tuned!

Sedan Quarter Panel Installation

Owners of 1955 and 1957 Chevy passenger cars are very fortunate that the reproduction quarter panels are available for Hardtops and Convertibles. Owners of 2-door Sedans and Wagons are not as lucky because quarter panels are not available for these body styles. (1956 owners really have it tough because no quarters are available at all.) The high cost of tooling will likely prevent Sedan quarter panels from ever being reproduced at all. With a little work and some very careful measuring and cutting, the 1955 full quarter panels, **Part #31-143** (Left), **Part #31-144** (Right) and 1957 full quarter panels, **Part #31-69** (Left), **Part #31-70** (Right) can be adapted to fit a Sedan properly.

Our article will show the installation of a Left rear quarter panel on a 1955 Bel Air Sedan. Installation procedures for 1957 Sedans will be virtually the same. Station Wagon installations will be very similar also.

1) The driver's side (Left) quarter panel on our 1955 Sedan had definitely seen better days. It was heavily rusted at the bottom and had received a very hard hit just behind the wheel opening at some time in the past. The metal was so warped and full of body filler that the decision to remove it and install new metal was made. (See Photo #1.) The reproduction quarter panel, **Part #31-143**, is shown next to the original quarter panel still on the car. (See Photo #2.) You will notice that dimensionally the Hardtop/Convertible replacement quarter is the same as the original Sedan quarter except in the beltline dip area just below the front of the quarter window. The wheel opening, door area, taillight area, etc... are all the same between Hardtop/Convertibles and 2-door Sedans! One important thing to remember whenever replacing any sheet metal: **Never cut off the old panel until the new one is in front of you and numerous measurements have been made!** This will save you a lot of grief trying to fill back in when you have cut out too much!

2) Begin by preparing the new quarter panel on both sides with DuPont Metal Conditioner **Part #49-27**. Apply the diluted solution using steel wool and protective gloves. Wipe dry before solution has a chance to air dry. (See Photo #3.) Metal Conditioner will remove all grease, surface



Photo #1

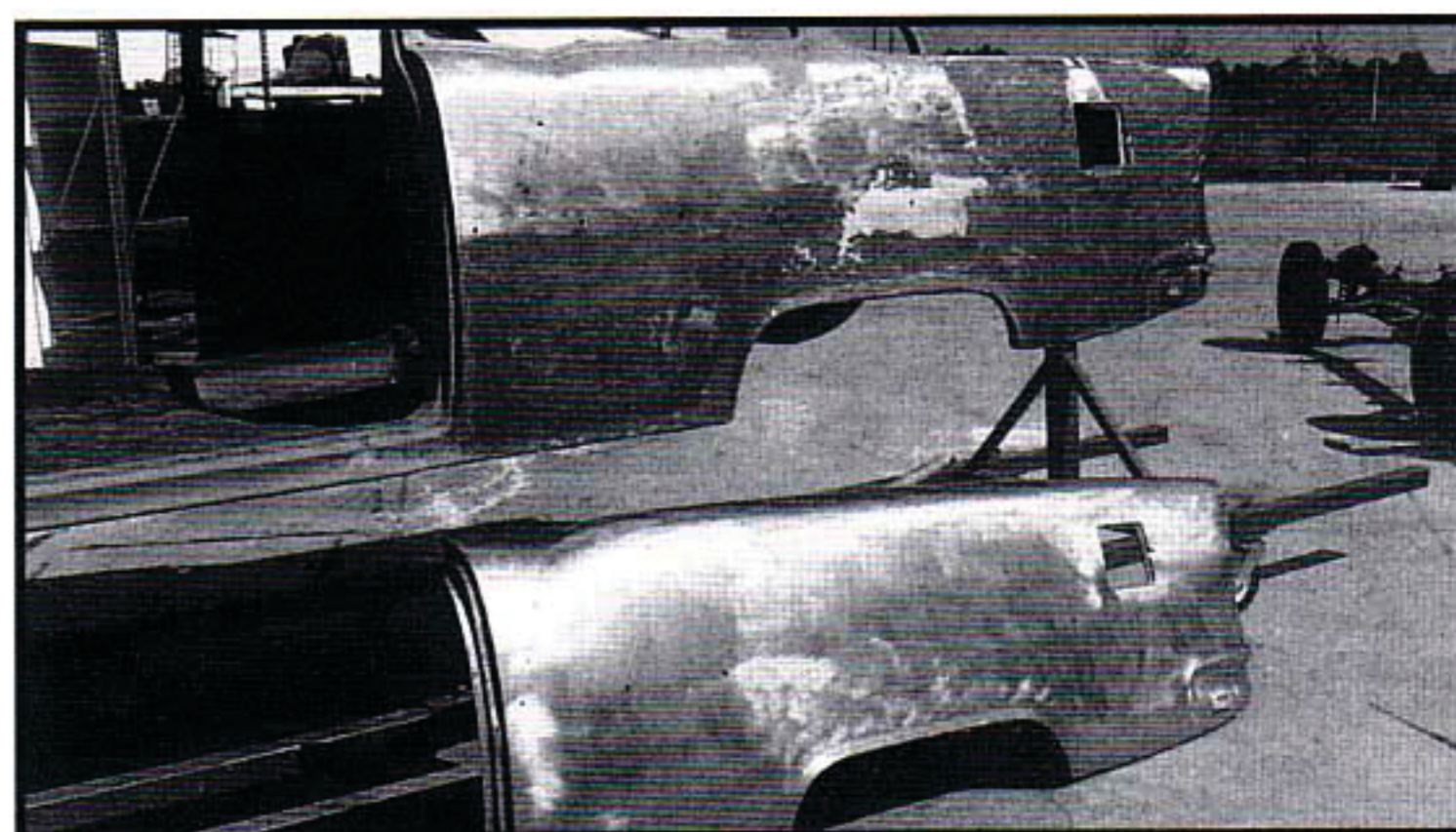


Photo #2



Photo #3

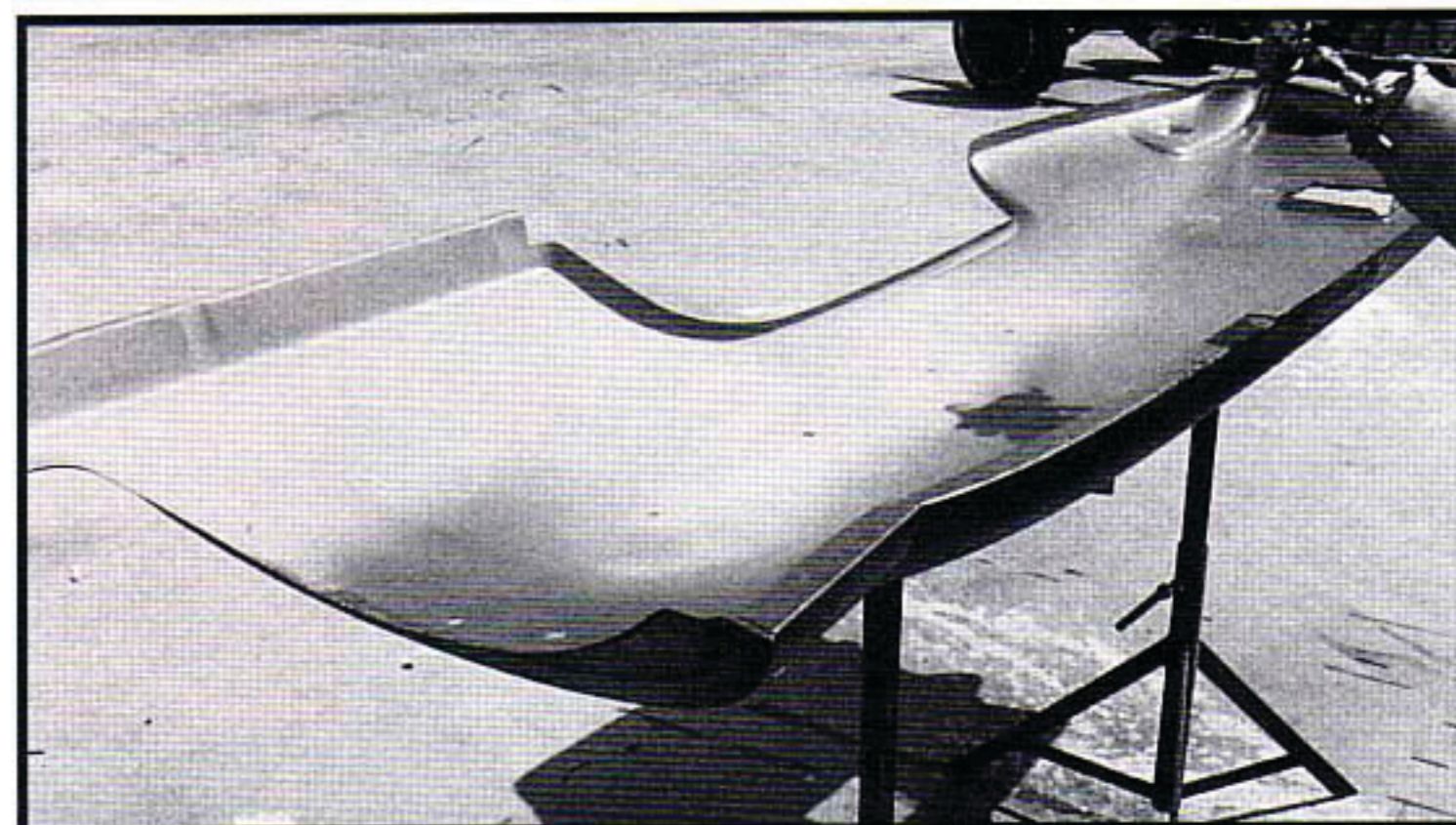


Photo #4

rust and other substances and help prevent the metal from rusting in the future. Prime both sides of the panel with some type of acid-etch primer such as DuPont Variprime. (See Photo #4.)

3) Before cutting the old quarter panel, hang the door and adjust it so that it fits properly. (See Photo #5.) This will allow you to maintain proper door gaps as the new quarter panel is installed. Melt the original lead out of the taillight and rocker-to-quarter seams using an acetylene torch and low heat (See Photo #6.)

4) Cut the quarter panel loose from the lower inner quarter wheelhouse by cutting a notch out of the quarter flange with an air cutoff tool. (See Photo #7.) Cut the quarter along the top edge, front to rear, leaving at least 3 to 4-inches of metal below the centerline of the top of the quarter. Check this against the repro quarter and be sure you are leaving enough metal for final trimming. Measure down 12-inches from the lowest part of the quarter window opening and 12-inches back from the door jamb, leaving this large piece of the original quarter intact in the beltline area. (See Photo #8.)

5) Continue cutting the quarter down the front edge 3/4-inch or so behind the door opening, all the way down to the rocker. (See Photo #9.) Cut along the underside of the rocker all the way to the edge of the wheel opening. (See Photo #10.) Continue by cutting a notch out of the quarter



Photo #7



Photo #8

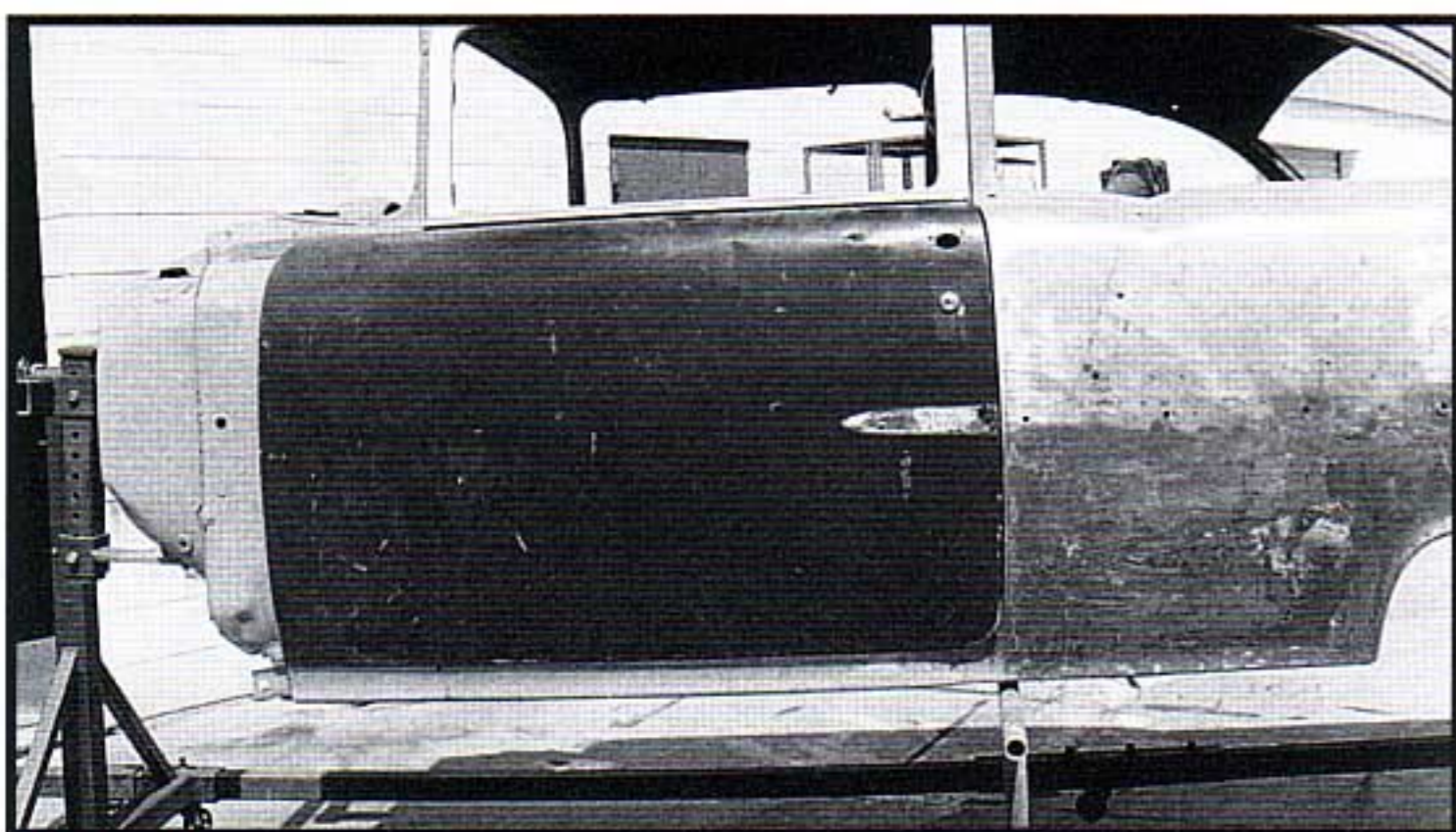


Photo #5

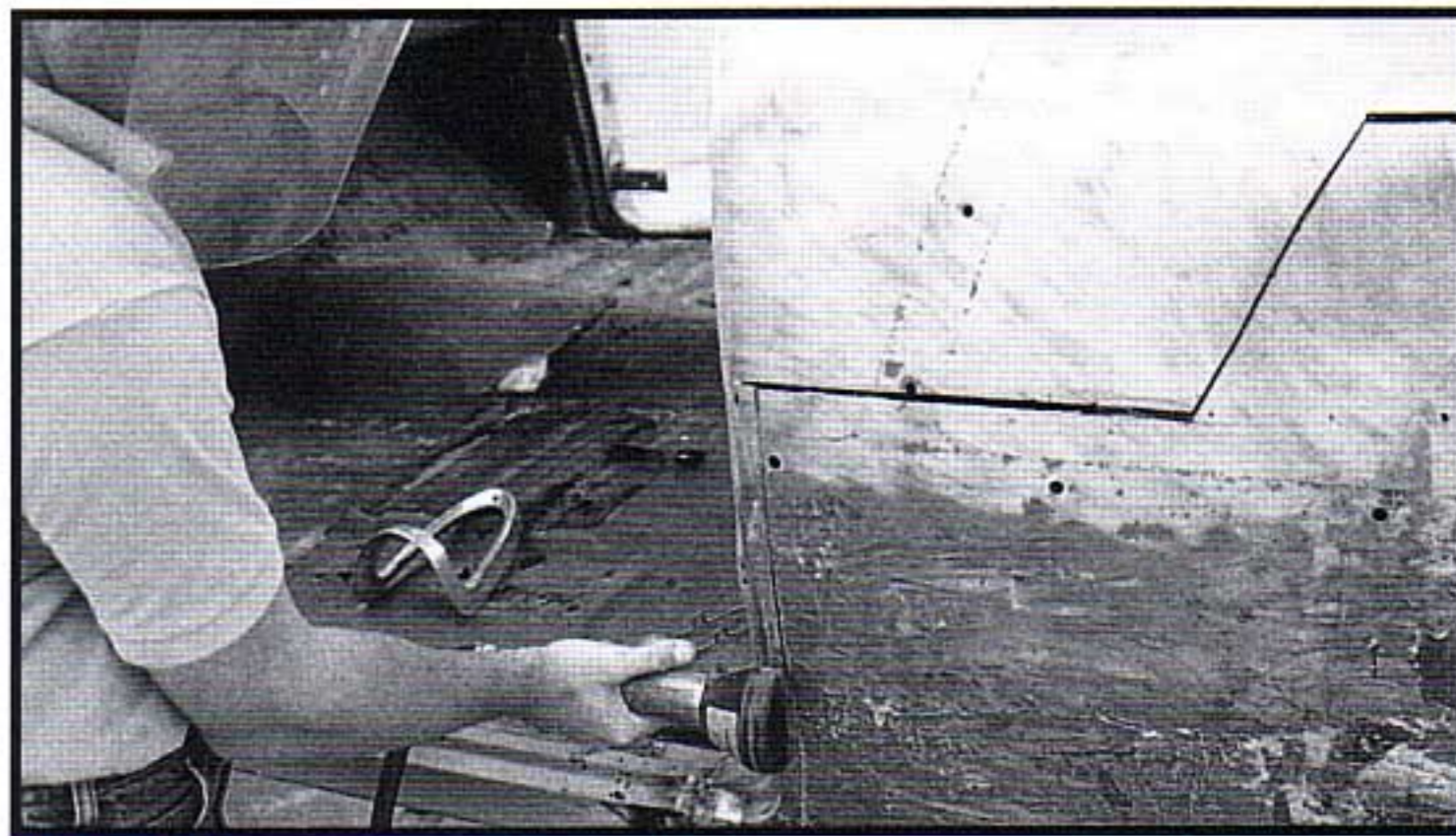


Photo #9

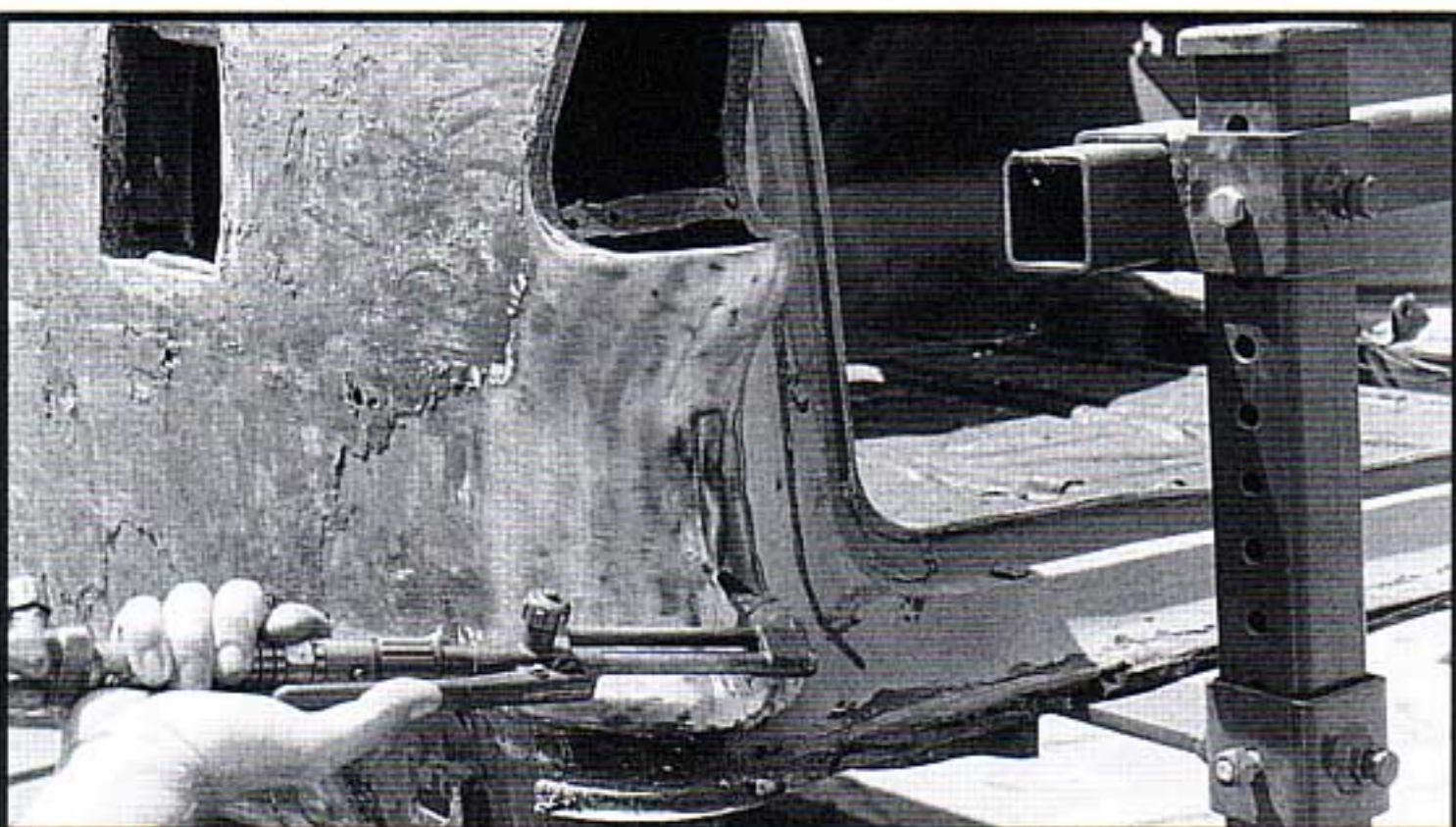


Photo #6



Photo #10

in the tail lamp area, freeing the inner taillight support brace. (See Photo #11.) Cut just to the outside of the original pinchweld seam below the taillight all the way to the bottom of the quarter. (See Photo #12.)

6) The quarter panel should now be cut free from the car. After removal, your quarter area should look like ours does in Photo #13. Now is a great time to repair or replace sections of the inner wheelhouse area. Our car had been hit very hard in the left quarter, so the wheelhouse required some straightening before the new quarter went on. (See Photo #14.) Clean up the extra scrap metal left at the taillight and lower wheelhouse locations so the new panel can "butt" up to these areas. You may also wish to replace the rear inner wheelhouse to quarter seals, **Part #05-45**. We also cut out a bad area in the inner rocker at this time to make replacement easier (See Photo #15.) This is an excellent time to sand-blast and prime the inner wheelhouse and quarter areas if you wish.

7) Measure down from the lowest portion of the beltline dip on the new quarter about 6-inches, or about 1 1/2-inches below the center upper paint divider hole. Mark a horizontal line on the quarter about 12-inches long or so. Measure back about 8-inches and scribe a line diagonally up to the top of the panel. (See Photo #16.) Take measurements on the sheetmetal remaining on the car to be certain you will have plenty of overlap metal to work with. Cut the new panel along the lines you have made and along the edge of the door opening down around the lower

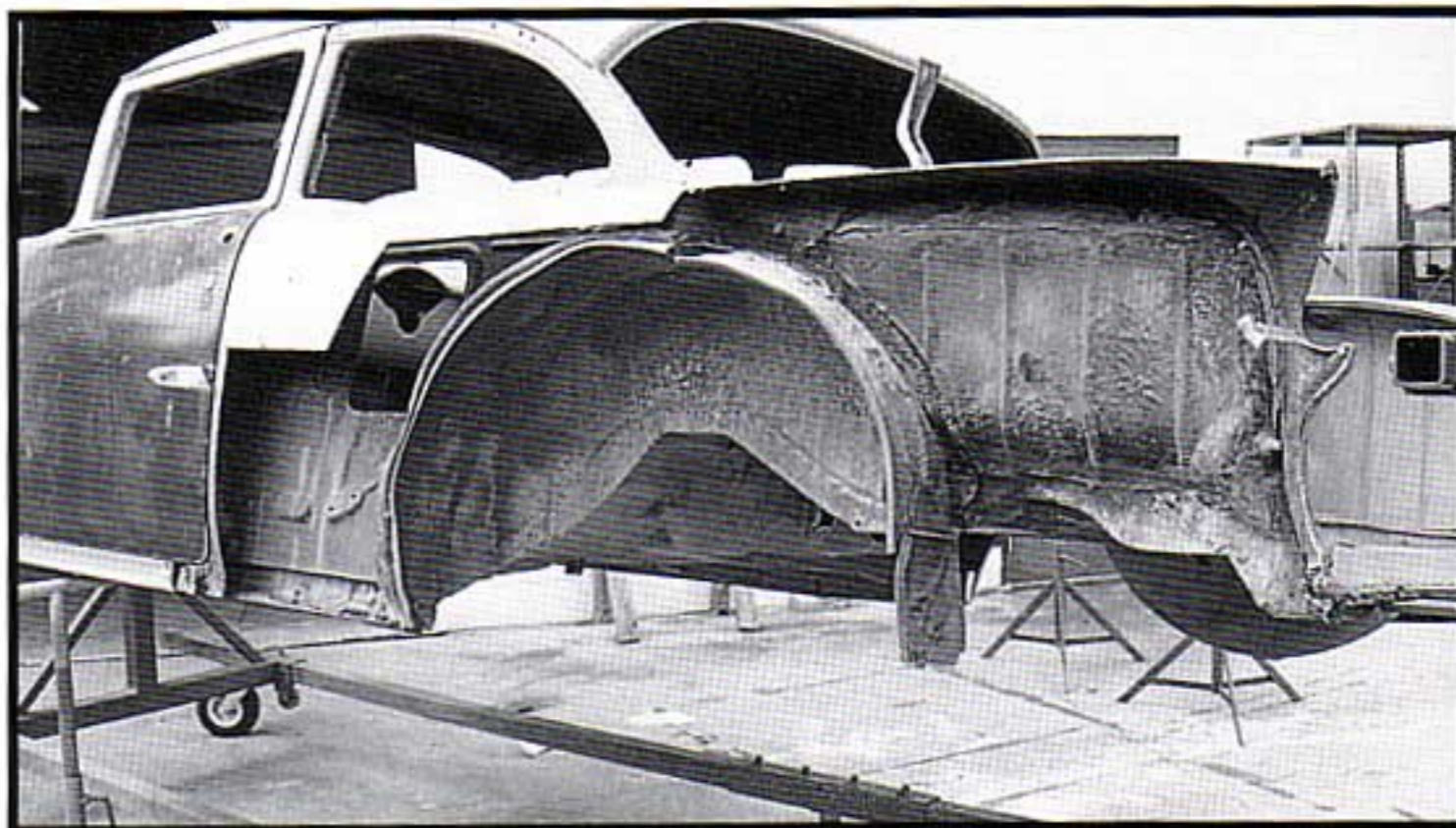


Photo #13



Photo #14

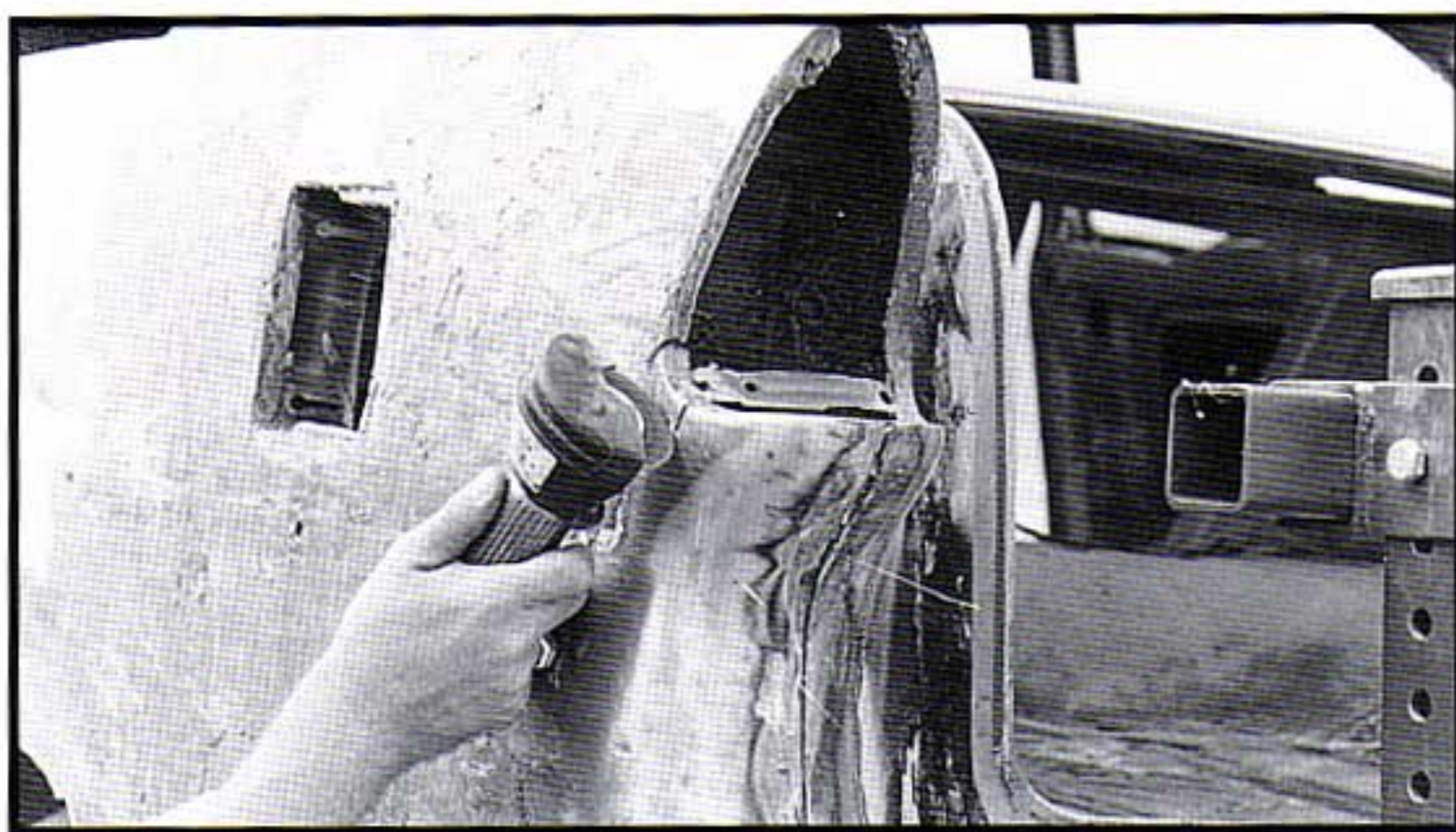


Photo #11



Photo #15



Photo #12

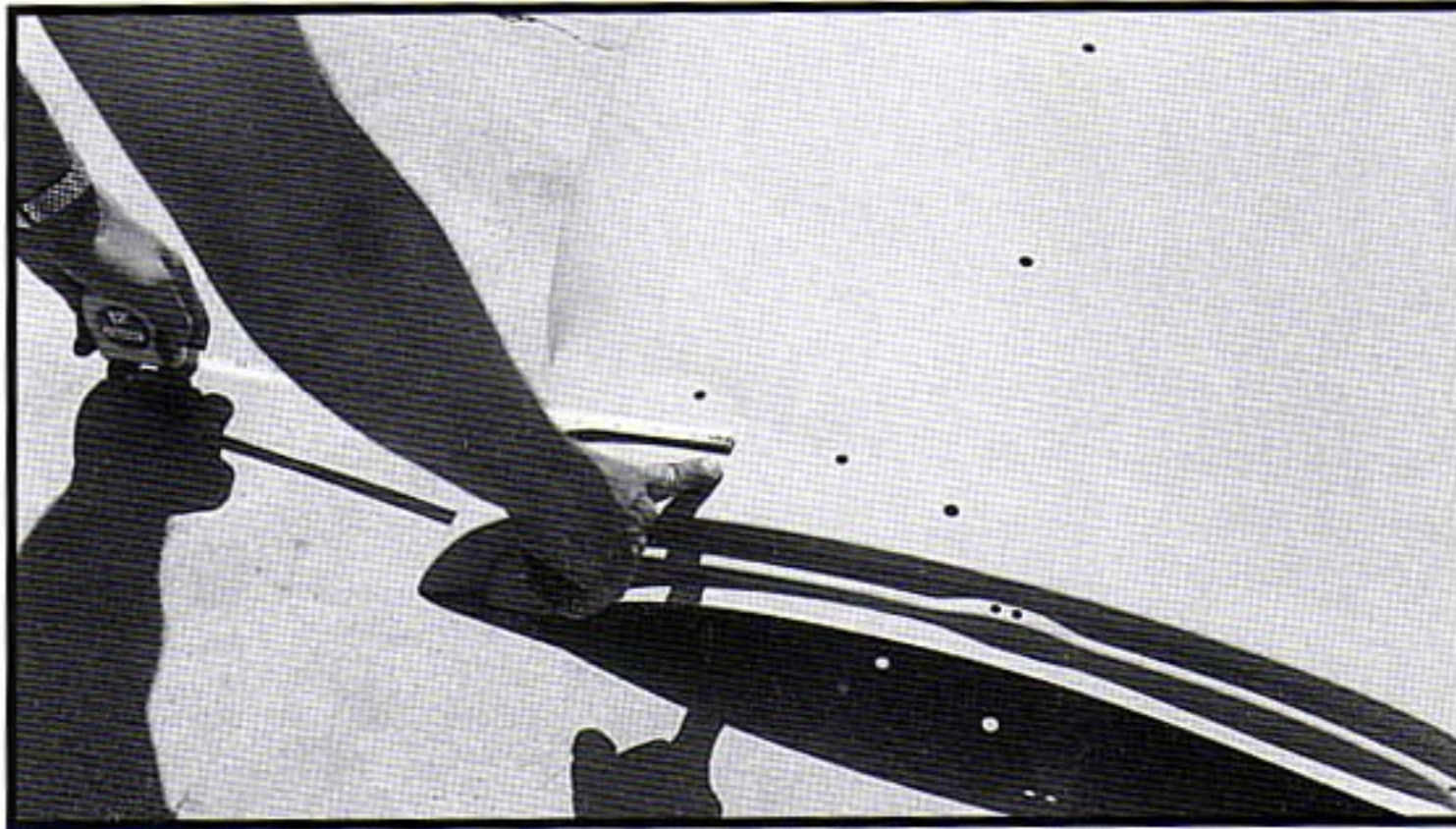


Photo #16

door radius to the rocker joint. (See Photo #17.)

8) Test fit the new quarter panel on the car by overlapping the edges of the old panel at the top and “butting” it at the taillight opening. Clamp into place temporarily and check for fit. (See Photo #18.) Notice the fit in the rocker area and make marks on the old rocker area for trimming once the test fit is finished. (See Photo #19.)

9) Check the overlap of the panel at the top seam from the taillight area up to the quarter window area. You will have 4 to 5-inches of new quarter overlapping the edge of the old panel still on the car. Remove the new quarter and trim about 2-inches from the top edge along the top of the new panel. Install the quarter back on the car and clamp into place. Scribe a line along the top edge of the new quarter onto the old quarter flange. (See Photo #20.) This line will become your mark to cut on for final fitting of the new panel. Note where the overlap is at the beltline area. Check to see how much metal you have left on the old panel and make marks to trim the new panel for a proper “butt” weld for final assembly. Mark the lines with tape or a scribe. (See Photo #21.)

10) Continue this process of trimming and test fitting until the new and old panels exhibit a slight gap ($1/32$ to $1/16$ -inch) between them that can be filled with weld and allow for slight expansion. The panel will fit better and better each time it is trimmed. Be sure not to remove too much! (See Photo #22.) Once the panel is final fitted to the car, sight down the side of



Photo #19

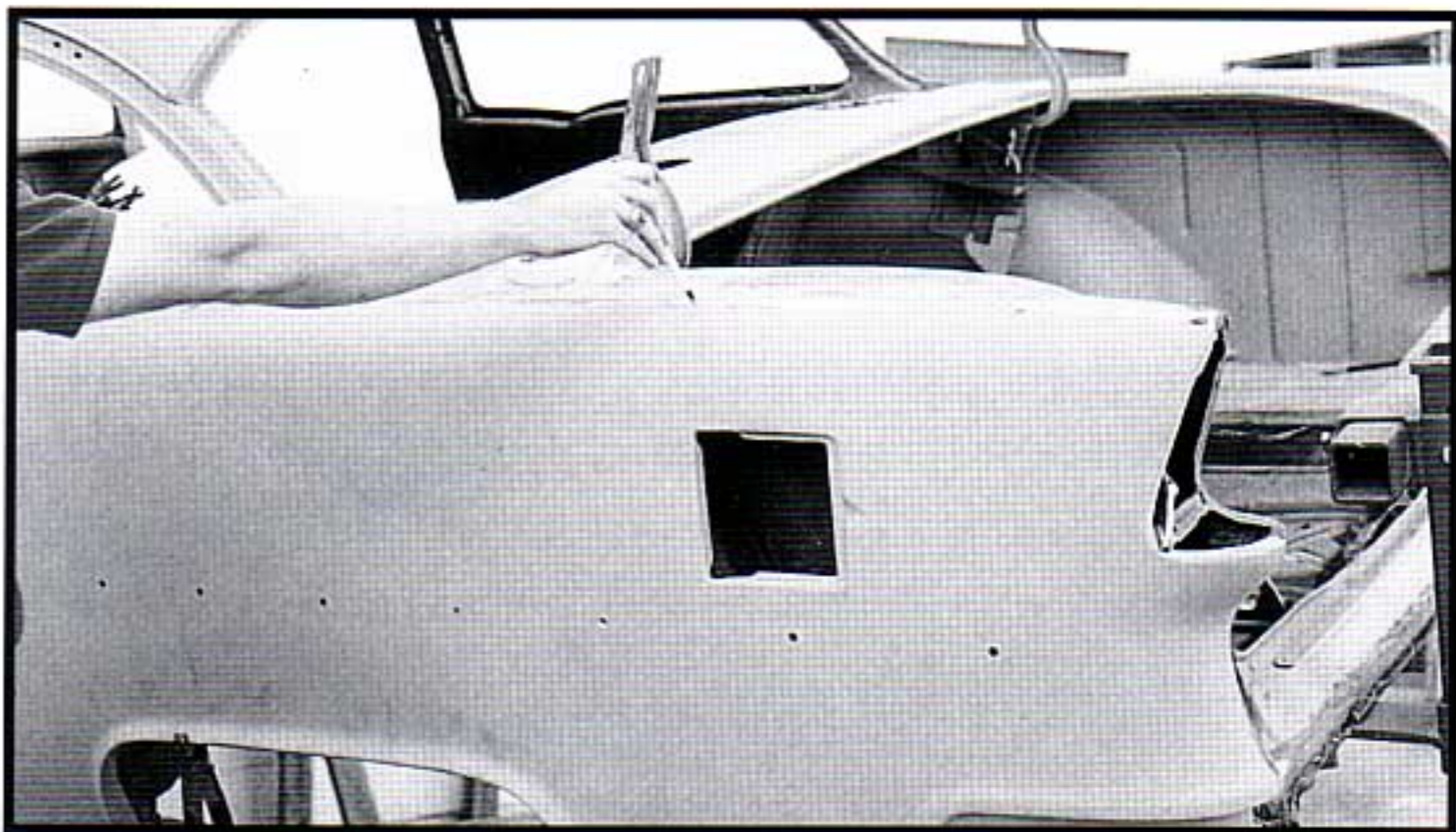


Photo #20

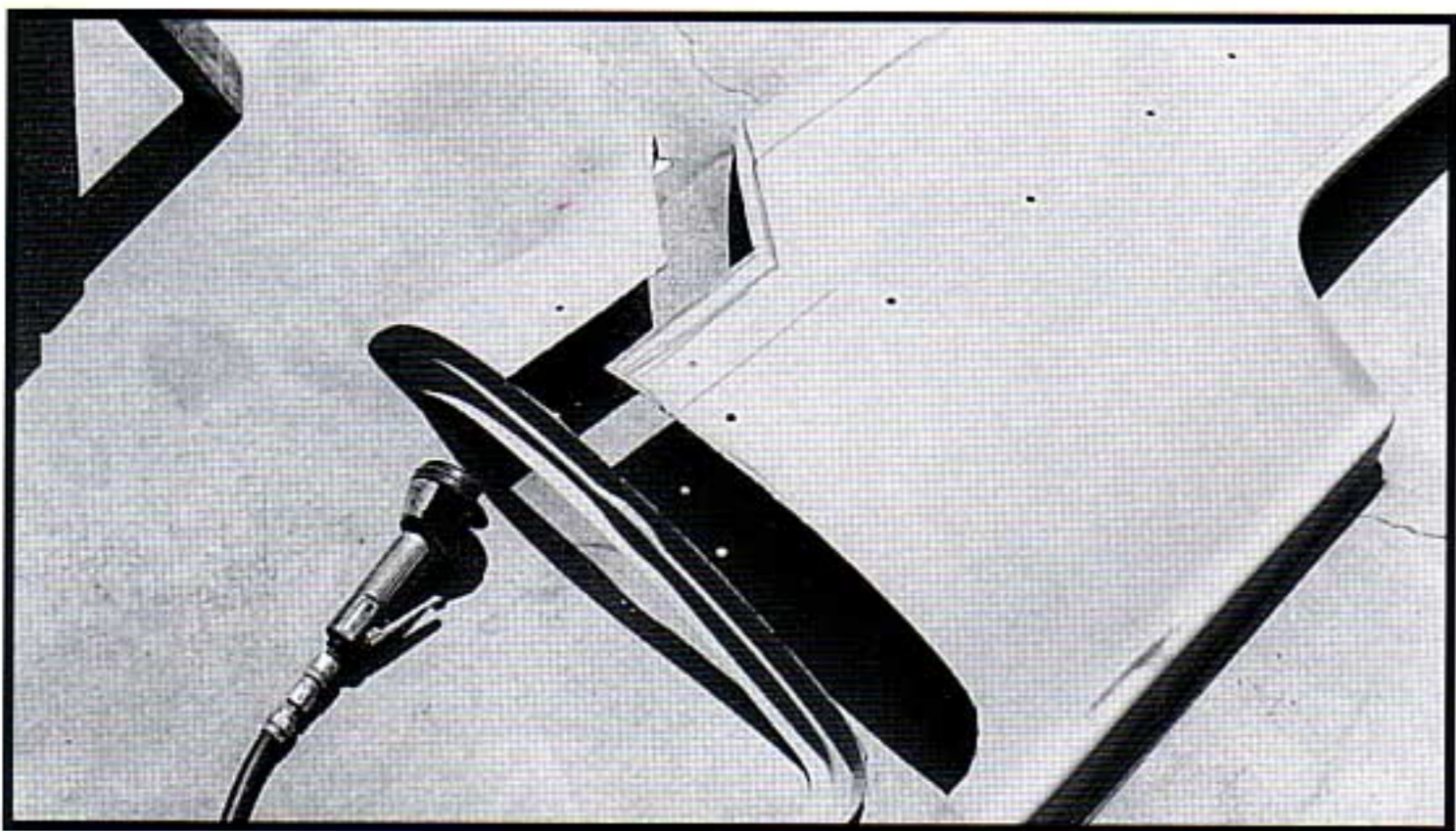


Photo #17

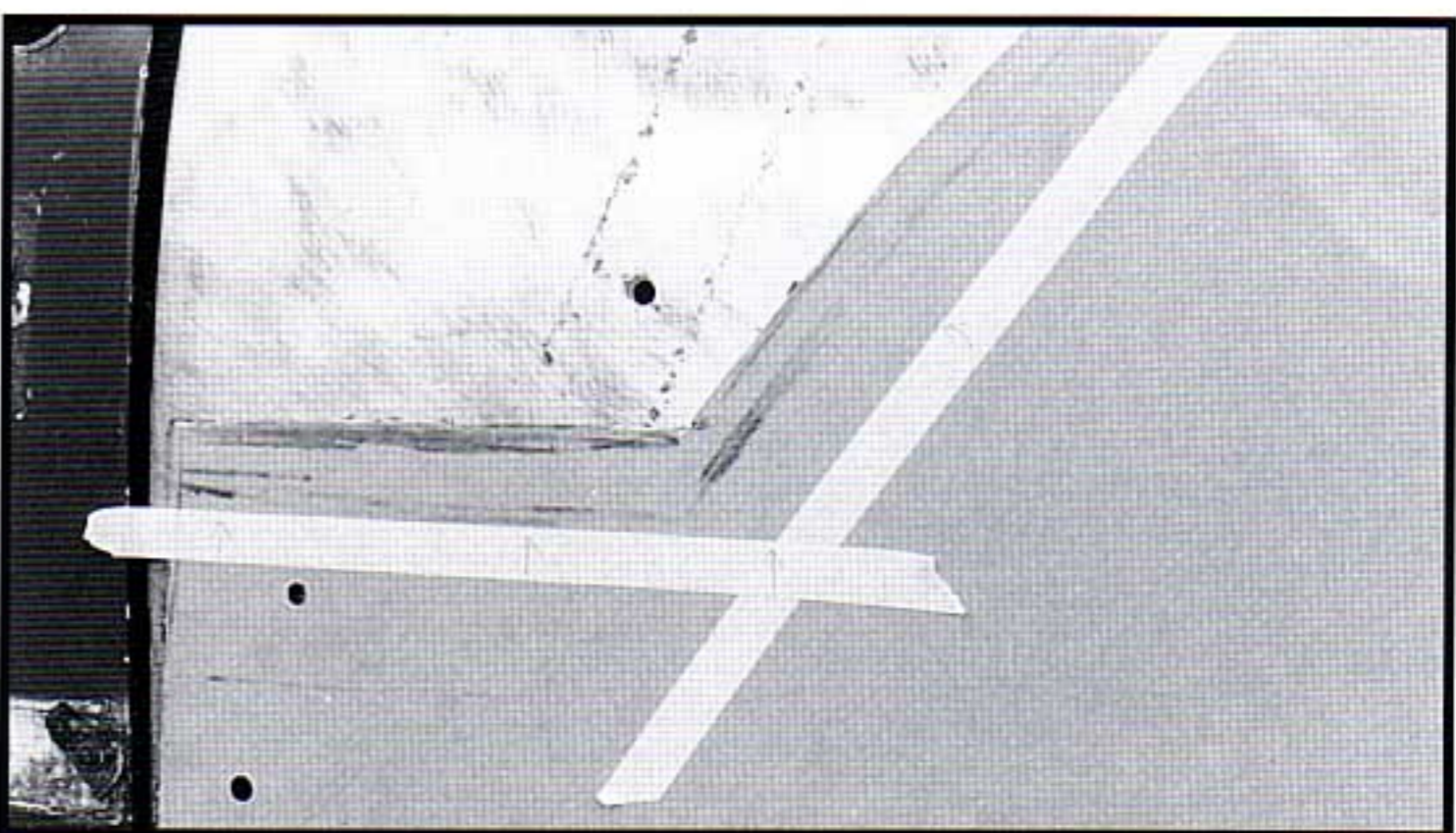


Photo #21

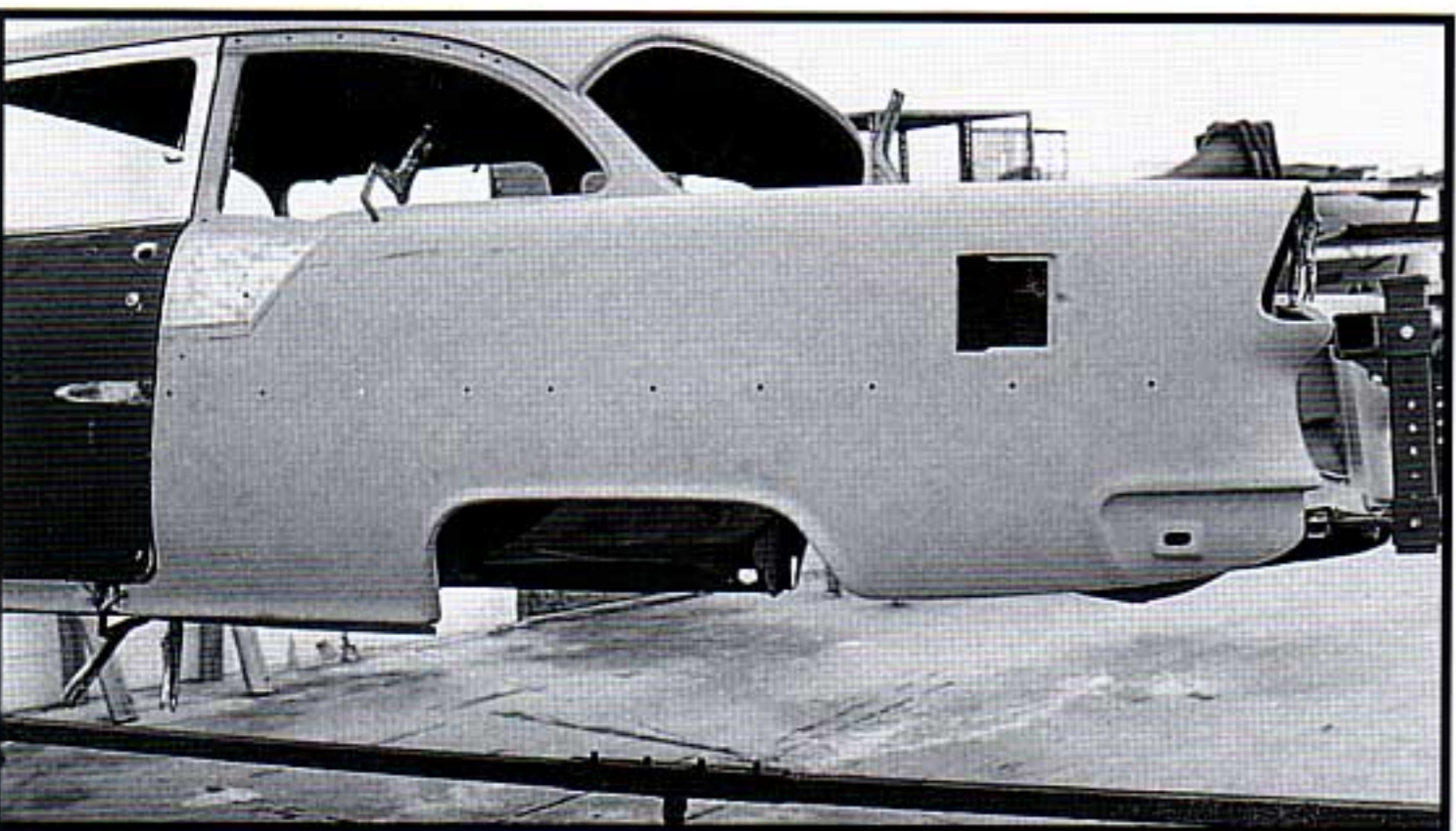


Photo #18



Photo #22

the body to be sure the panel is not “bulging” in the center over the wheel-well opening. If it is, it may need to be raised at the rear for proper fit. The time to correct a “fat” panel is now, not after it is welded on the car!

11) Begin spot welding the panel every 3 or 4-inches using a Mig wire feed welder to get it tacked on the car at the front. (See Photo #23.) Tack weld below the taillight opening to hold in place. (See Photo #24.) Spot weld the bottom edge of the quarter to the lower inner wheelhouse flap. (See Photo #25.) Spot weld the top edge of the panel every 3 or 4-inches, allowing the panel to cool between welds. (See Photo #26.) Take your time and do not put too much heat into the panel in order to prevent warpage. You may need to hammer or pry on the edges of the panels at times to force proper fit. (See Photo #27.) Do not allow the panels to overlap as you tack in place!

12) Using an original or reproduction taillight bezel, test the fit of the taillight opening. You may find it necessary to hammer/pry/adjust this opening until it fits your bezel perfectly. (See Photo #28.) Once satisfied with the fit, spot weld the edges in place and weld the inner taillight support brace into place. (See Photo #29.) Go back between the spot welds you have done and begin filling in between with additional spot welds or short stitch welds. (See Photo #30.)



Photo #25

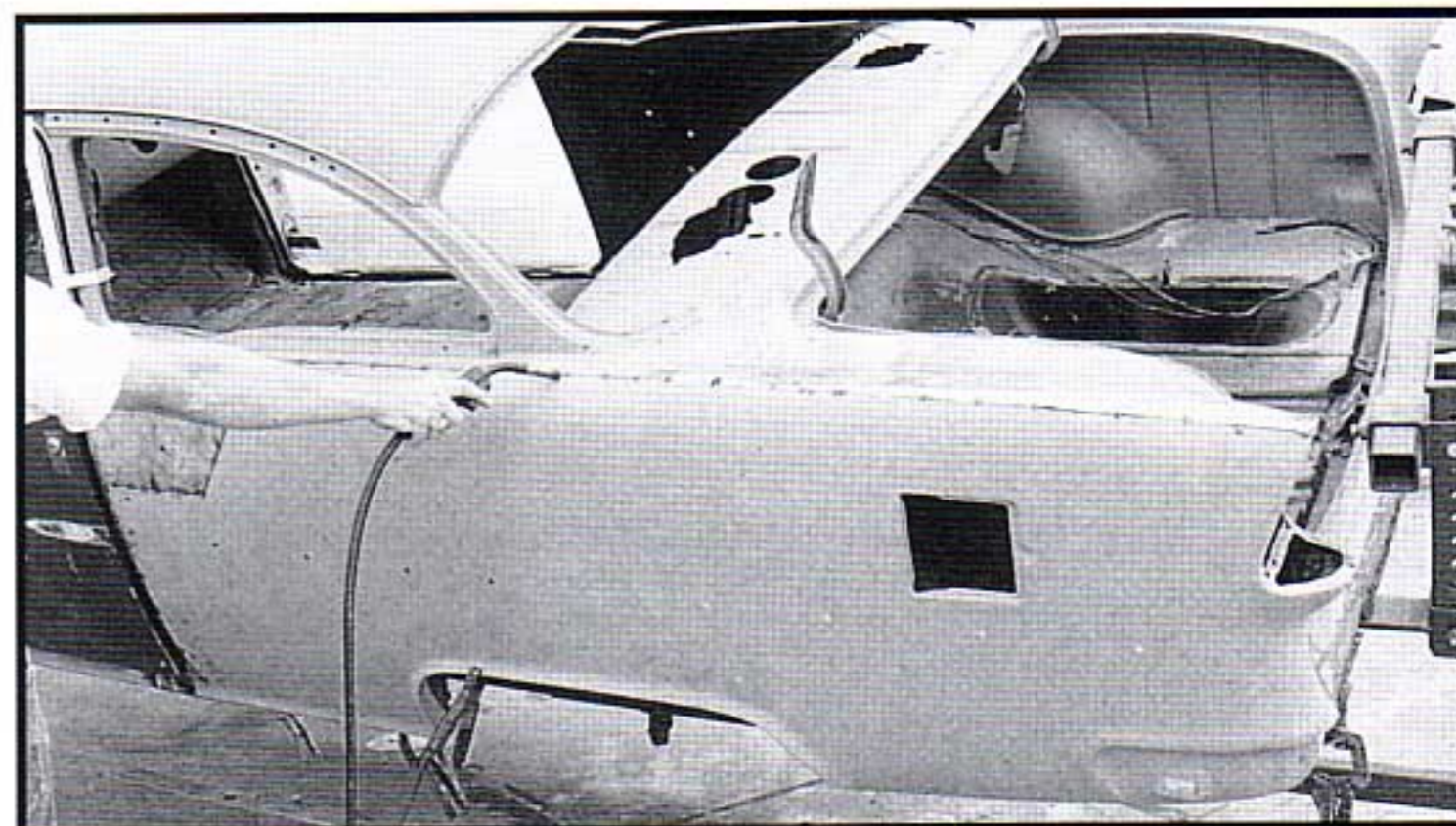


Photo #26

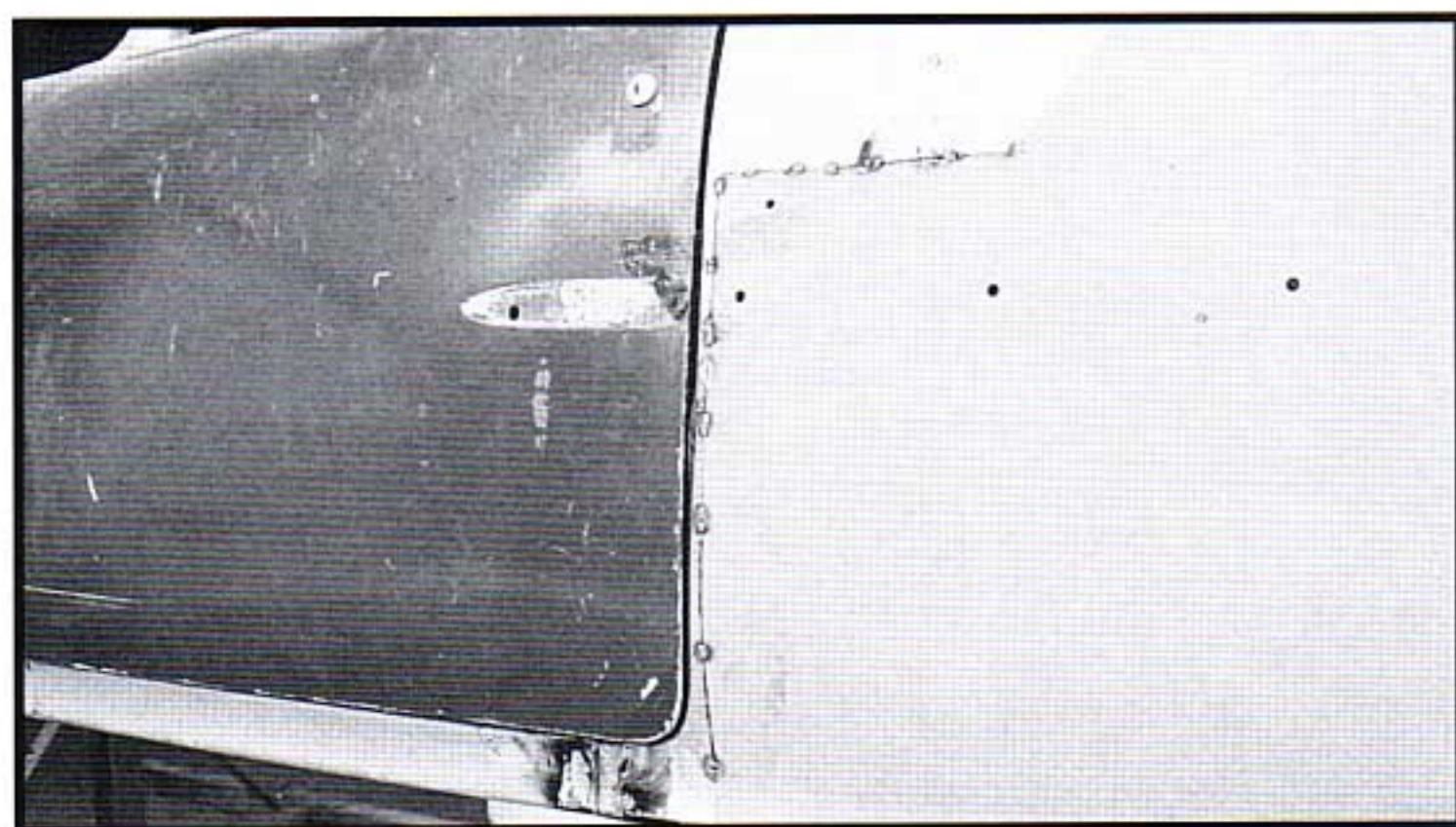


Photo #23

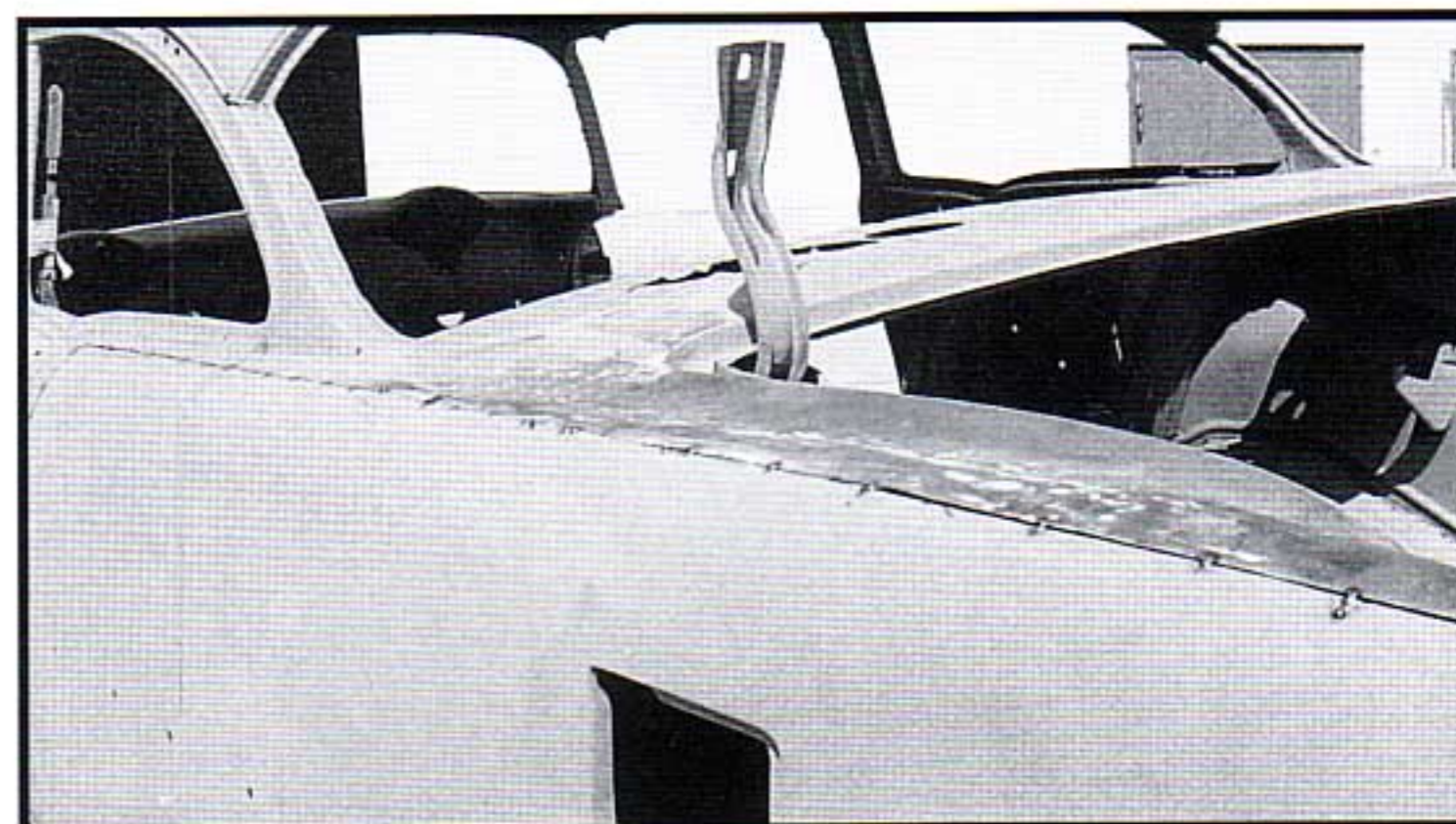


Photo #27




Photo #24



Photo #28

13) Drill a series of 3/8-inch or smaller holes through the inner rocker in the area where the new quarter should attach to the original inner rocker. Align properly and spot weld into place. (See Photo #31.) Notice the small patch we welded into the inner rocker that we cut out earlier. Spot weld the new gas door filler bracket, **Part #54-48** in place if you are installing a 1955 Left quarter. (See Photo #32.) Also remove the original rear bumper filler metal flange from the old quarter and weld to the new quarter below the taillight area. Be sure not to forget these important pieces, because once the car is painted its too late!

14) Photo #33 shows our quarter panel, completely spot welded in place. All that remains is to solid weld all seams, grind, straighten and fill before priming and painting. Though this installation is time-consuming and tedious, it is not that difficult if proper measuring is done and you remain patient. Most problems occur when the installation is hurried!

Though this installation was completed on a 1955 Sedan, similar methods can be used to install a 1955 or 1957 Hardtop/Convertible reproduction quarter panel on a 2-door Wagon as well. The only 2-door passenger car that you cannot complete this installation on is a 1955 Nomad, due to the wheel well opening differences. Good luck with your project! 

Need to refer to previous *Tech Help* articles?
Then you need

THE TECH BOOK



See the inside front wrap for details

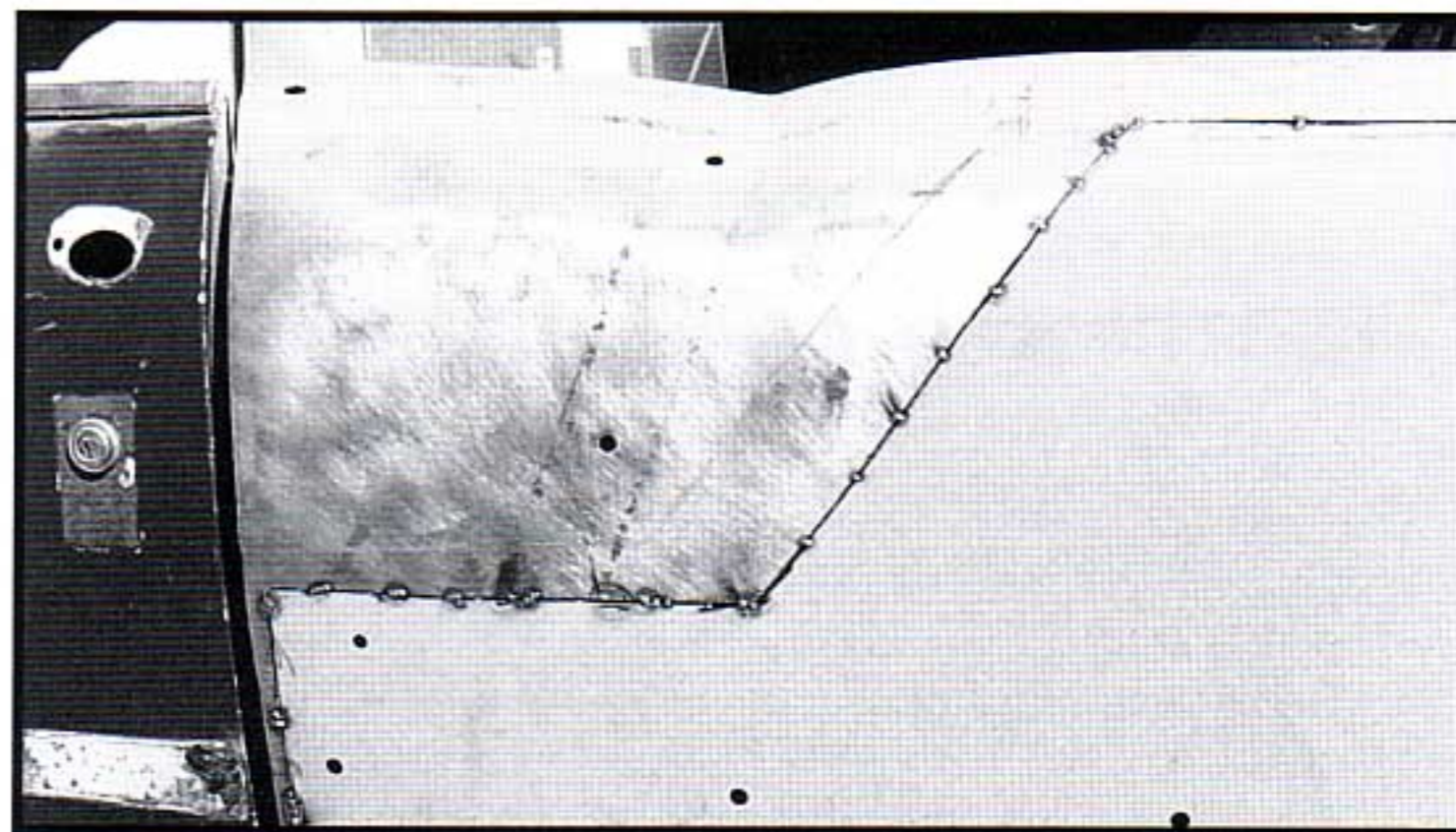


Photo #30

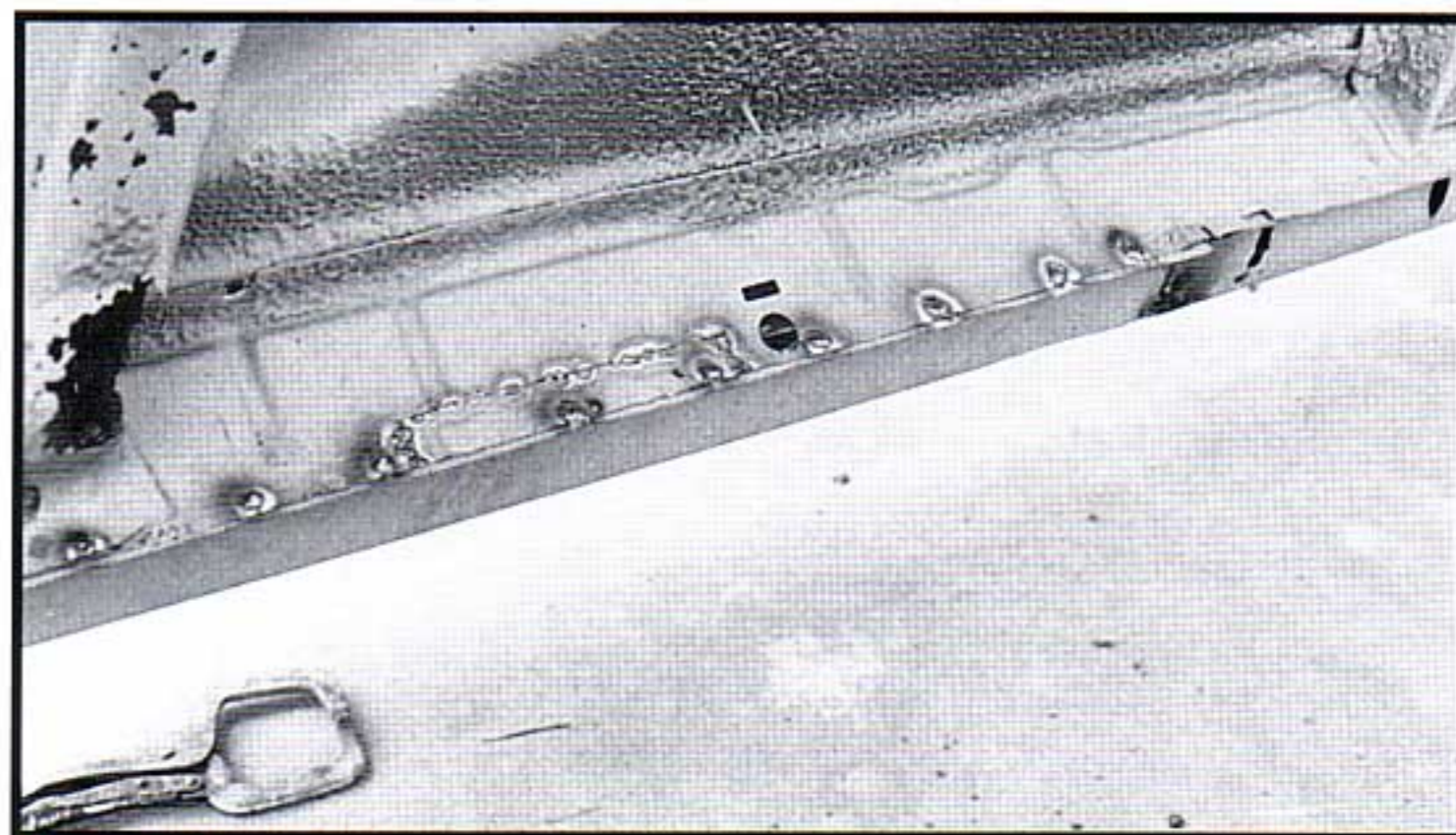


Photo #31

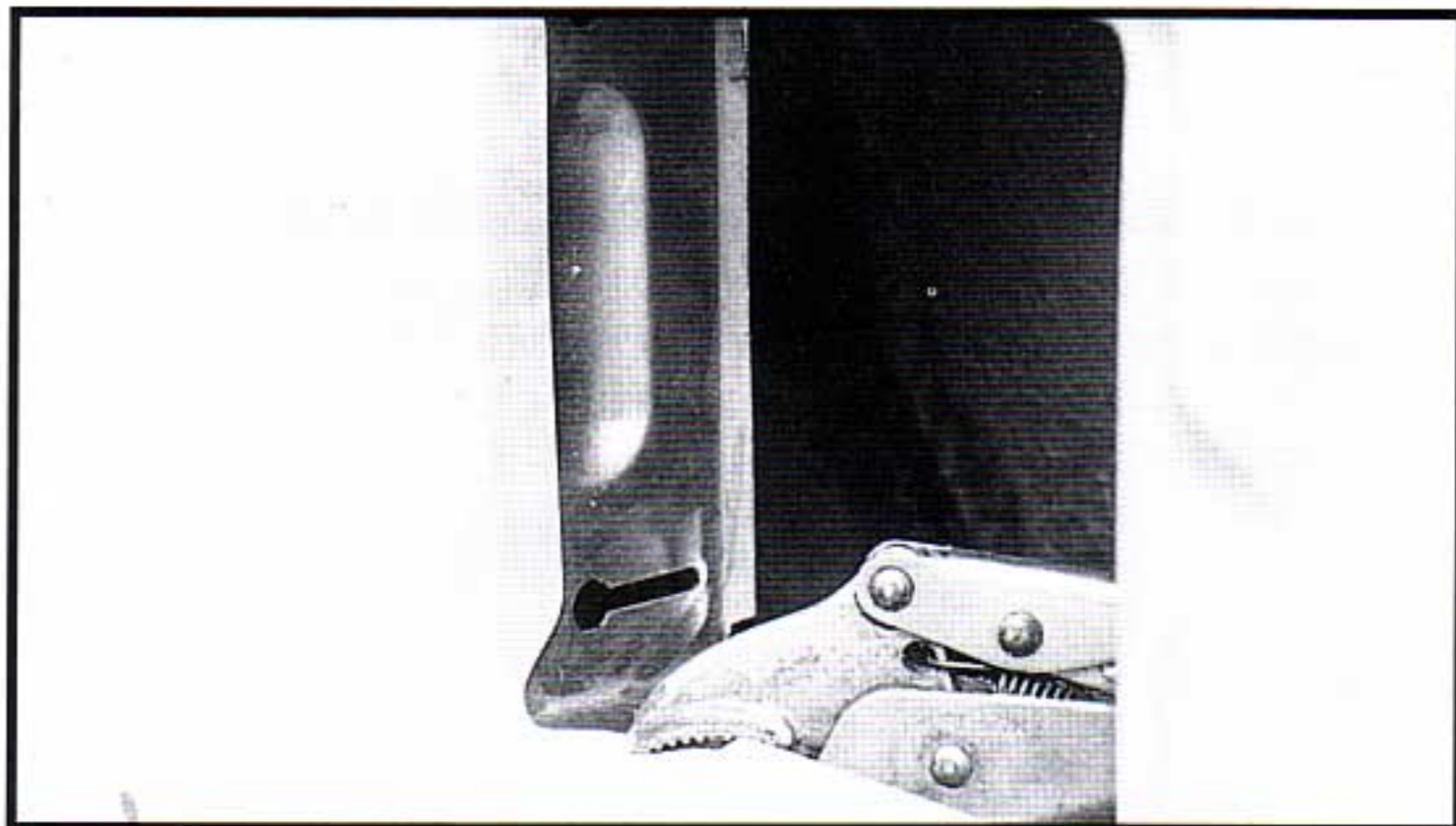


Photo #32

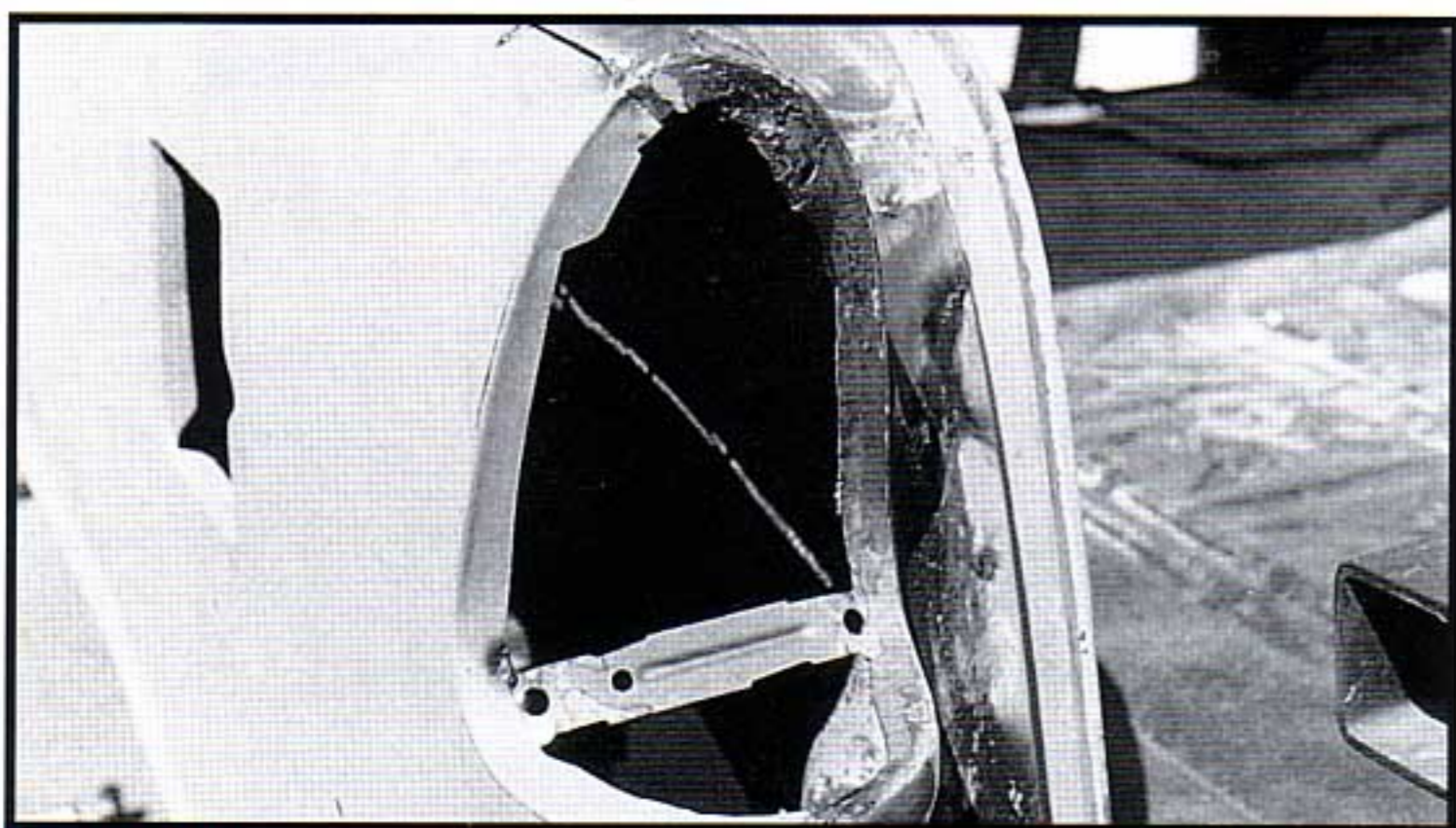


Photo #29

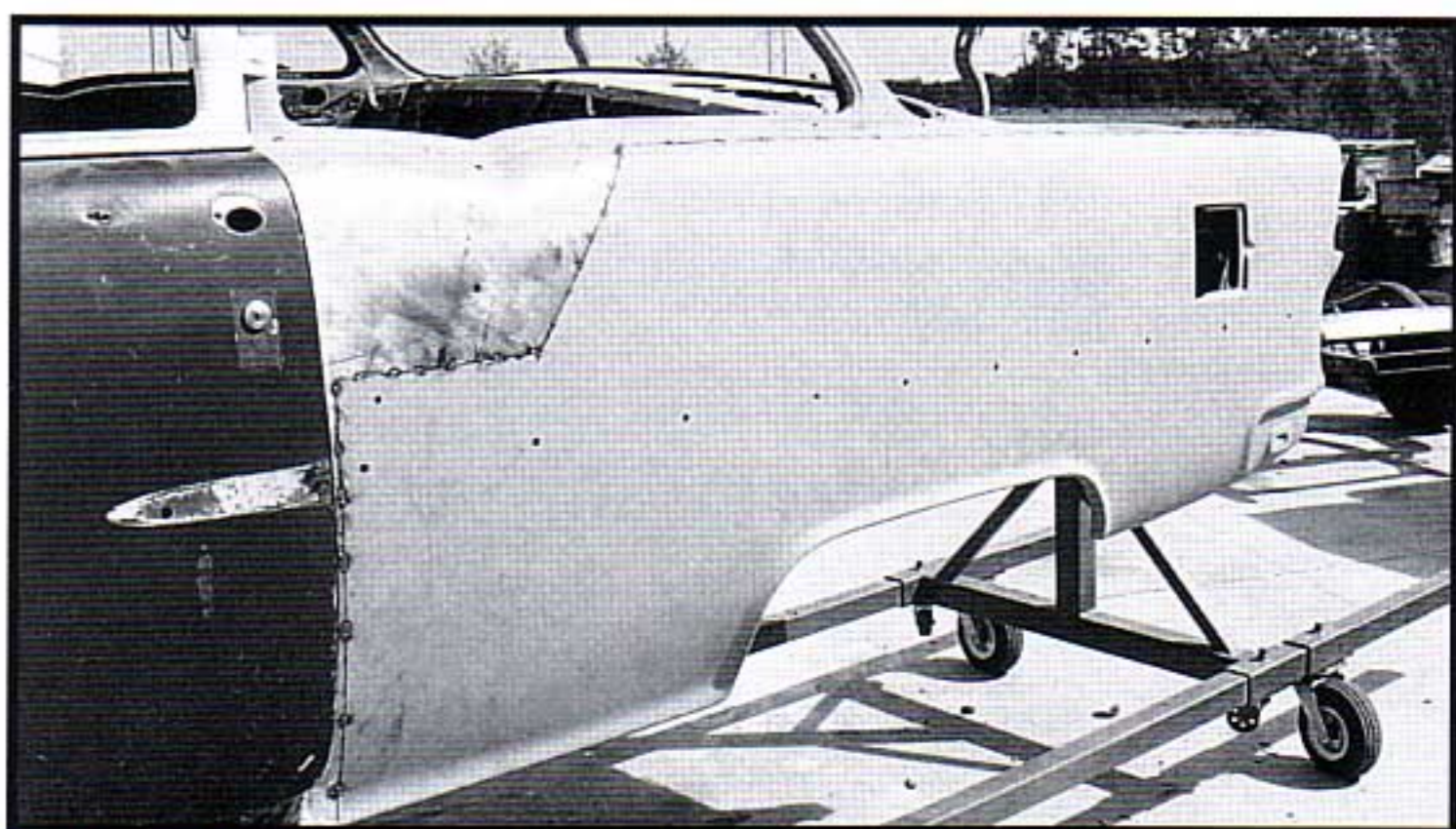


Photo #33