

10. Rear Rail Assembly

The rear rail is available as a complete assembly. It consists of an outer panel, two inner reinforcements, a rail extension, and all necessary component mounting brackets (figure 10-1). The outer panel and rear mounting brackets are also available separately to facilitate sectioning. Additionally, there is a crossbar that connects the two rear rails for added strength and rigidity.

Complete rear rail replacement can be performed by drilling out all the factory welds. The outboard flange at the forward end of the rail must be cut in one location and

bent upward, and the bottom flange of the crossbar must be bent downward. The rear rail can then be lowered from the vehicle (figure 10-2). When installing the service rail, the outboard flange must be cut and bent up, installed, then straightened, and aligned. Weld as necessary.

Rear rail sectioning procedures can be used to repair the rear rail if just the portion rearward of the crossbar is damaged. The rear rail outer panel is available separately for sectioning. Note: The rail extension panel must be purchased separately also.

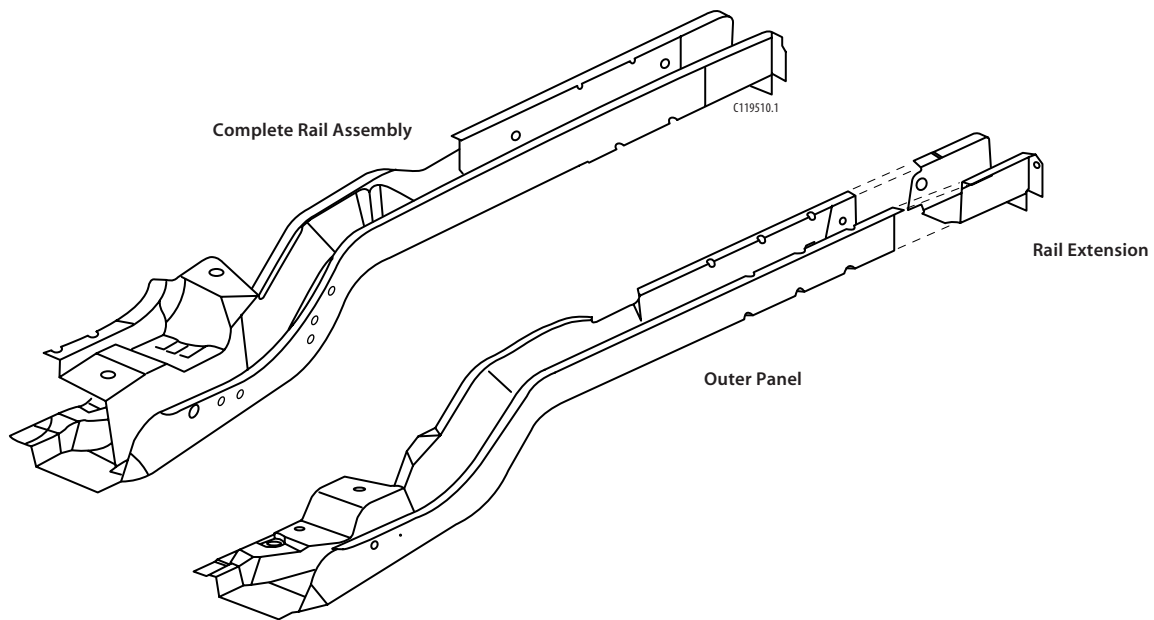


Figure 10-1:
Rear Rail Panels

Remove or Disconnect

1. Remove all related panels and components.
2. Visually inspect and restore as much of the damage as possible to factory specifications.
3. Cut the rear rail along the rearward flange of the crossbar (figure 10-2). Continue this cut around the rear rail.
4. Drill out the factory welds on the end of the rear rail inner reinforcement and extension.
5. Remove the damaged portion of the rear rail and rail extension.
6. Either move the end of the rear rail inner reinforcement forward, or cut this part and remove it from the rear rail.

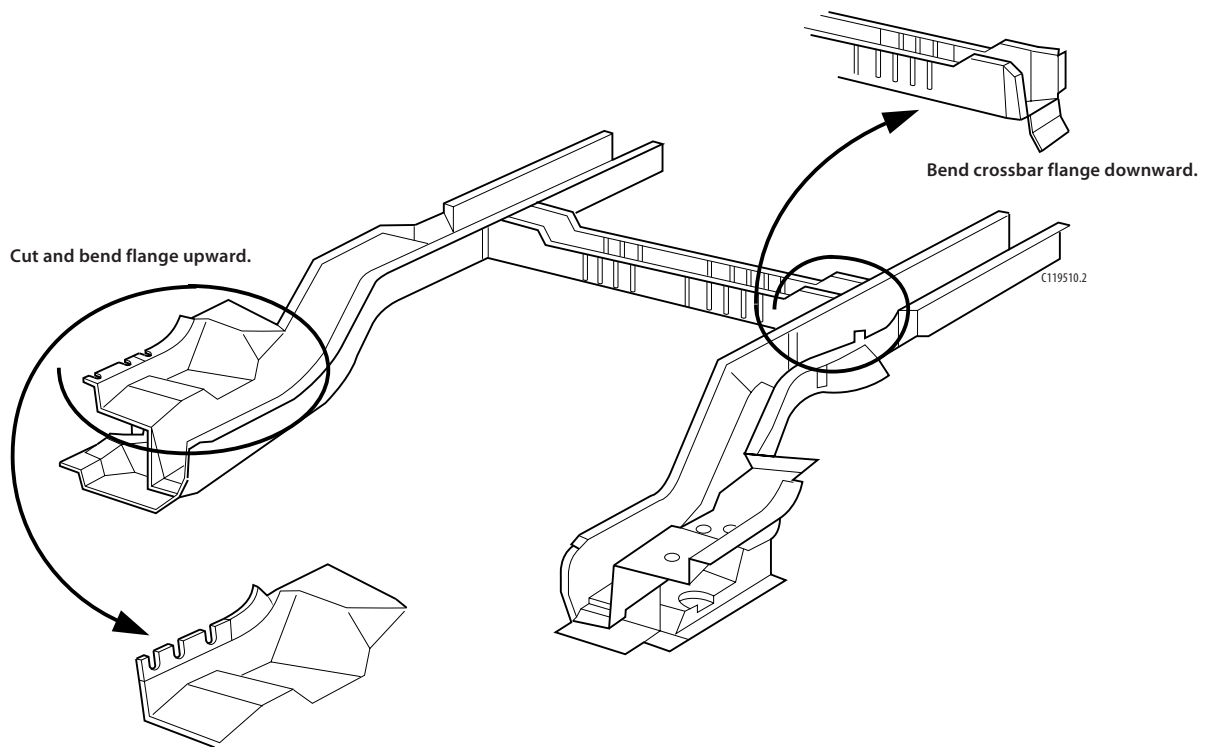


Figure 10-2:
Full Rail Replacement

REAR RAIL ASSEMBLY

Install or Connect

1. Using the original part as a guide, mark a line on the service rail 35mm ($1\frac{5}{16}$ inch) forward of the cut made to the original part (this should be approximately 535mm (21 inches) without the extension attached to the rail). This will provide an overlap for welding the service section (see figure 10-1).
2. Cut the service rail along the marked lines and discard the unused section (figure 10-3).
3. Cut and remove approximately 35mm ($1\frac{5}{16}$ inches) of the flanges on the service rail. Cut a 5mm ($\frac{1}{4}$ inch) gap approximately 35mm ($1\frac{5}{16}$ inches) along the corners of the service rail to create tabs (figure 10-4).
4. Step the tabs inward to allow the service rail to fit inside the original rail (figure 10-5).
5. Position the modified service rail inside the original rail, allowing 35mm ($1\frac{5}{16}$ inches) of overlap.
6. Check the position of the service rear rail section using three-dimensional measuring equipment and tack weld in three locations along all three sides of the rail (figure 10-6). Stitch weld along the entire seam and replace factory welds as necessary.
7. Drill two 8mm ($\frac{5}{16}$ inch) holes for plug welding in each of the three sides of the rail approximately 30mm ($1\frac{3}{16}$ inch) from the sectioning joint, plug weld through the drilled holes into the service rail.
8. Clean and prepare welded surfaces. Apply sealers and anti-corrosion materials as necessary. Prime with two-part catalyzed primer. Do not combine paint systems. Refer to paint manufacturer's recommendations.
9. Install all related components.

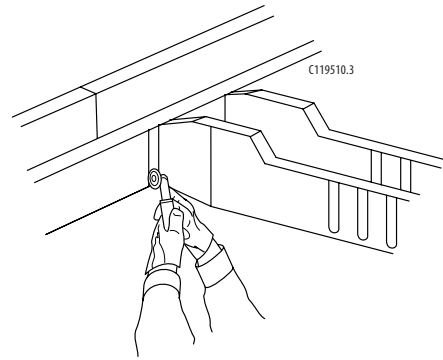


Figure 10-3:
Cut the Rail for Sectioning

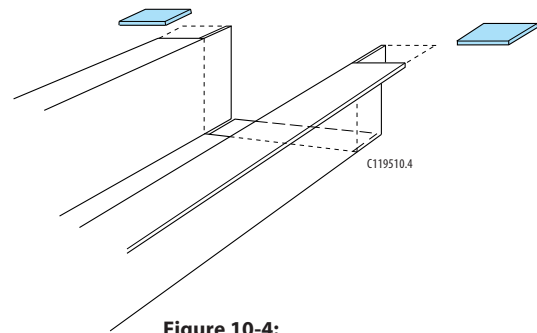


Figure 10-4:
Create Tabs on the New Rail Section

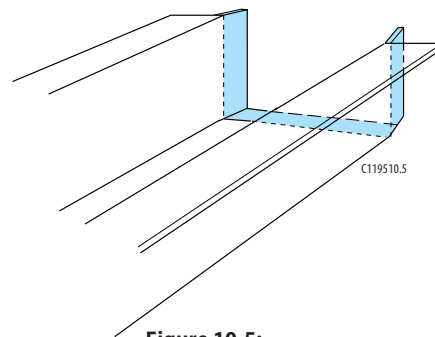


Figure 10-5:
Step Tabs Inward on the New Rail Section

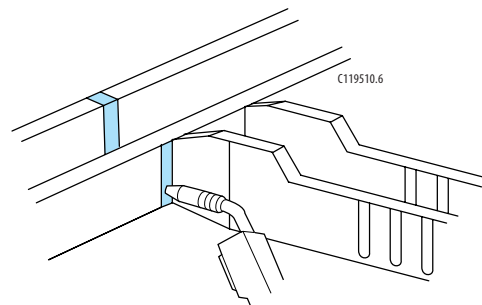


Figure 10-6:
Install the New Rail Section