



## Repair Standards

### 01-010 – Top Rail Section

#### Disclaimer:

*Only a certified and experienced person using suitable tools should complete the repairs described below. Repairs should meet or exceed manufacturer's minimum specifications and should be in agreement with all safety and ecological regulations.*

#### Permissible upon return and does not require repair:

- Acceptable repairs.
- Scratches no more than 1/8" deep in top rail or top rail rivets.

#### Requires repair upon return:

- Cuts that have been welded and greater than 12" in length.
- There is 3/4" or greater bend in the rail.
  - This extent of a bend is the furthest that a rail can bend and therefore it will not return to its original size/appearance.
- The rail damage is greater than eight feet in length.

#### Restrictions:

- A top rail section cannot be in the middle of the trailer.
  - This is considered a 3-piece rail, which is unacceptable
    - A 3-piece rail is a rail that has two splices.
- A top rail section can be up to, but not exceeding, 75% of the trailer length.
  - Damage that would require greater than 75% of the rail length to be sectioned needs to be replaced entirely.
- A top rail section from the front of the trailer must range 4' past the middle of the landing gear legs.
- In the case that both top rails and both bottom rails need to be sectioned, the top rails should be replaced and the bottom rails sectioned.
  - Sections should be centered between side posts and staggered, no less than, four feet on the bottom rail.
- If a rail is completely replaced, it needs to meet OEM design.
- In the case that there are multiple rail sections (top rail/bottom rail) including roof sections, the cuts need to be staggered by four feet.



### **Procedure:**

1. With the inner rail reinforcement being 18 ½" long, the reinforcements can be placed against the panel surface and between the post flanges and roof bows, assuming the posts are on 24" centers. Be sure that the reinforcement is in the middle of two posts. In a case where the splice is made where the post centers are 12", alter the length of the post in the center of the 24" panel by 3/16". By lessening this length 3/16", the reinforcement can fit above and behind the splice.

### **Sectioning the Top Rail:**

1. Be sure that the damaged area, to be sectioned, is flat and braced.
2. Be aware of any air or electrical lines along the railing and relocate lines, if needed, to make rail removal easier.
3. Take out the interior liner, roof liner and roof scuff liner cautiously, if needed.
4. Starting with the end nearest the damage cut and take out the railing that needs to be repaired.
5. Replace the damaged area with a new piece of railing, cut to size.
6. Add Mylar tape behind the new piece of railing where it comes into contact with steel before putting everything back together. The new piece of railing should be primed and painted to match the color of the original railing and all other parts should be wrapped in Mylar tape. Any steel parts that are unprotected should be cleaned/protected using a non-flammable solvent.
7. Sealant should be added in between the top rail and inner reinforcement
8. The bottom reinforcement should be positioned where the original rail and new rail join.
  - a. Secure the inner rail reinforcement into place using ¼" hard bucking rivets.
    - i. At least 16 rivets should be used on each side of the joint.
9. The outer reinforcement should be secured with OEM fasteners at the top rail to the side panel rivet line. A supplementary row should be added beneath to replicate the pattern in the bottom post rivet.
10. The rail joint should be sealed and never welded.
11. Replace the interior liner and scuff liner, if removed in step 3.



## Finished Product

Exterior:

