



## Repair Standards

### 01-002 - Aluminum Roof 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.

#### Requires repair upon return:

- Unacceptable repairs.
- Roof damage exceeding 576 square inches.

#### Restrictions:

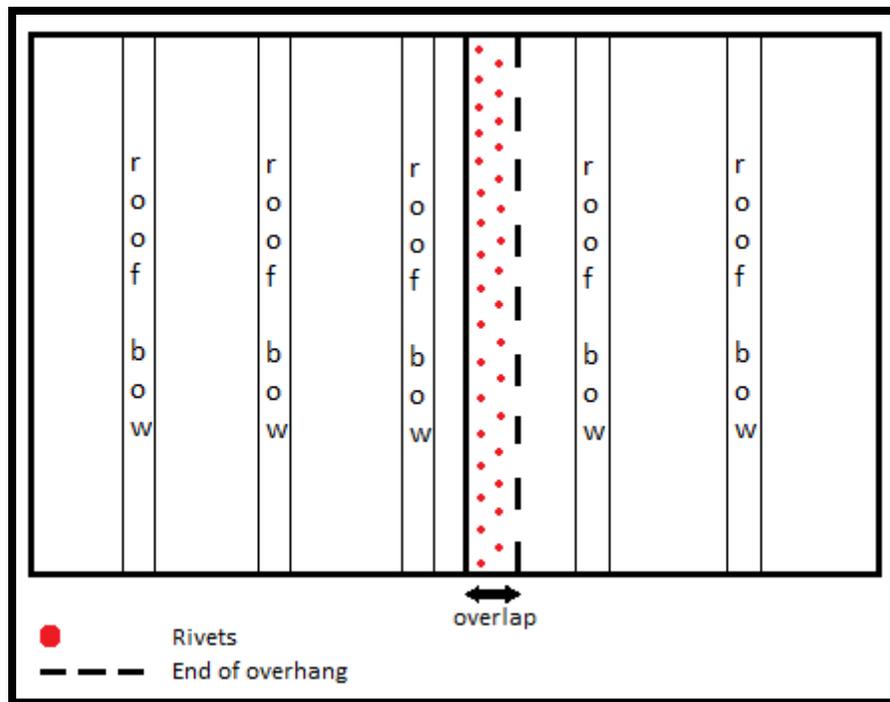
- Sections are not to exceed 75% of the trailer's length.
- If the roof is being sectioned along with the top rail, the roof section must extend at least four feet past the rail section.
- Sections can only be from the front or rear of the trailer; never section a roof in the middle of a trailer.
- Do not exceed two sections per roof. If a roof requires a third section, replace an existing section to include the new damage or replace the entire roof.

#### Procedure:

1. It is imperative that repairs are made on level ground before beginning a roof section. Level the trailer in numerous places to confirm that the trailer is level. Not completing repairs on a level surface could result in a loose roof.
2. If necessary, remove roof scuff lining.
3. The minimum roof section allowed must extend to within 3" of the second roof bow from the front or rear of the trailer.
  - a. Front roof section – Cut three inches *in front* of the roof bow at the undamaged area and remove 9" of the top rail to roof rivets and J-molding from the existing roof sheet at the lap joint.
  - b. Rear roof section – Cut three inches *behind* the roof bow at the undamaged area and remove 9" of the top rail to roof rivets and J-molding from the existing roof sheet at the lap joint.
4. Clean the exposed rail flanges with non-flammable solvent and replace the foam tape.



5. Check all rails for proper alignment and if sectioning the roof at the rear of the trailer, confirm that the door frame is square.
6. Lay out and center the replacement .04" aluminum roof material.
  - a. Front roof section – *overlap* the new roof material on top of the existing roof sheet by two inches.
  - b. Rear roof section – *underlap* the new roof material under the existing roof sheet by two inches.
  - c. Whether you over or underlap the new section depends on how rain will roll off the new section or existing roof. Doing the opposite will cause eventual leaks.
7. Clean the roof material at the splice area with non-flammable solvent.
8. Once again, confirm that the roof sheet is square and then apply foam tape between the roof section and existing roof sheet.
9. Modeling the diagram below, rivet two rows on two inch centers of 3/16" x 3/8" soft or hard type bucking rivets from the center out. One row of rivets needs to be 1/2" from the overlap rear edge and the second row must be offset one inch 1/2" from the overlap rear edge.



10. Pull the roof sheet to tighten from the end of the trailer using an anchored chainjack. Then, install four to six temporary bind rivets evenly spaced across the end to secure the tension.
11. While maintaining the rails stay straight, drill holes and rivet the new roof sheet and J-molding over the temporary roof bows on both sides. Install all other rivets necessary in the sides and release the tension from the chainjack.



12. Trim and install the J-molding and then using a holefinder, rivet the end, working from the center outward.
13. Before reinstalling the tension roof bows, place foam tape on the flanges. Spray soapy water on the surface of the foam tape in order to allow movement of the bows to allow the aligning of the fastener holes.
14. Check the roof for tightness, readjust if not tight.
15. Seal all sides and ends of roof sheet with Seal-Gap AH-55 and brush GeoBond Roof Repair Fibered sealer over the rivet heads.
16. If necessary reinstall interior roof scuff lining.



## Finished Product

### Exterior



### Interior

