



## Repair Standards

### 03-002 – Flatbed Mainbeam Re-cambers

#### 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:

- Sagging bow in middle of mainbeam (Negative camber)

#### Guidelines:

- Contact PennStro Leasing, LLC before any repairs are made. It needs to be verified that the trailer is worth the value of the repair. The correct trailer manufacturer also needs to be made aware of the issue.
- Be sure that the trailer is on a flat surface and held off of the ground. This can be done with the use of sawhorses (recommended). The sawhorses should be placed right behind the landing gear assembly and between the axle spread (if a spread axle trailer), or in front of the first axle (if a closed tandem trailer).
- Determine that the trailer is level by placing a levelling tool above the sawhorse support locations and adding shims underneath the mainbeams. The level being used for the readings should be braced on the mainbeam flanges on top of the floor. The level can be placed on a large nut positioned on the mainbeam flange (recommended).
- Using a string and two blocks (roughly 3" high), located at both ends of the beam, you can define the camber in each beam. You can do this by pulling the string the entire length of the beam and placing it to rest on the 3" block. The string should be pulled equally tight on each side throughout the readings. Record the measurements in multiple locations throughout the length of the beam. Reproduce the same process on the other beam and report your readings as you go.

#### Condition 1 – Level the camber of one mainbeam to another mainbeam.



**Procedure:**

1. Heat the mainbeam at the middle trailer. Heat should be directed at the bottom flange with the shortest space in the middle of the string and the beam.
2. Heat the mainbeam the entire width of the flange section. Center the heat zone four inches behind every triangular side rail brace.
3. Make your way to both ends of the beam starting from the middle and heading outwards. Heat three to five spots before continuing on.
  - 1) NOTE: Make sure that the temperature of the beam does NOT go over 750 degrees Fahrenheit.
4. Let the beam return to its original temperature
5. Begin the measurement process again: Using a string and two blocks (roughly 3" high), located at both ends of the beam, you can define the camber in each beam. You can do this by pulling the string the entire length of the beam and placing it to rest on the 3" block. The string should be pulled equally tight on each side throughout the readings. Record the measurements in multiple locations throughout the length of the beam. Reproduce the same process on the other beam and report your readings as you go.
6. Restore all paint colors to original color provided with the trailer.

**Condition 2 – Adding camber to each mainbeam**

1. Heat the bottom flange of both mainbeams.
2. Proceed with the same steps as provided in Condition 1.