

Roll-Rite®

ELECTRIC TARP SYSTEMS

Roll-Rite® Installation Instructions for **Water Tight Side Dump Tarp System**

Tarp Stowed on Passenger's Side

Trailer Covered



Trailer Uncovered





*Roll-Rite Tarping Systems
Installation Instructions for Water Tight
Side-Dump Trailer Systems*

Pivot Box Installation

1. In order to mount the pivots on your side dump trailer, you will need to attach mounting brackets to each end. If you purchased mounting brackets manufactured by Roll-Rite Corp., bolt them on using the provided mounting bolts*.
2. Locate the two pivot boxes that you received with the system. Make sure that the clevis pins are in the top hole of the boxes. Locate the boxes so that the spring tension adjustment holes are oriented toward the lockdown side of the trailer (typically driver side)*. Attach the pivot boxes to the mounting brackets using the provided mounting bolts*, but do not tighten the bolts at this time.

Figure 1 - Front of Trailer

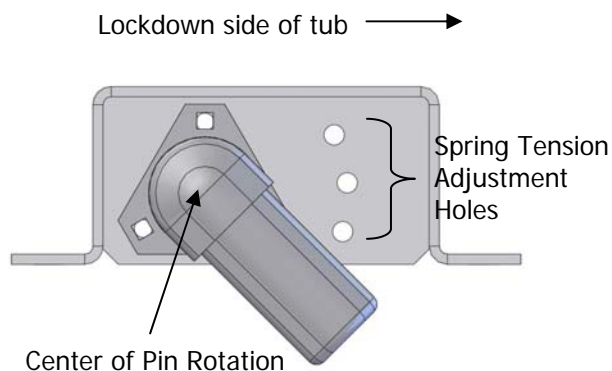
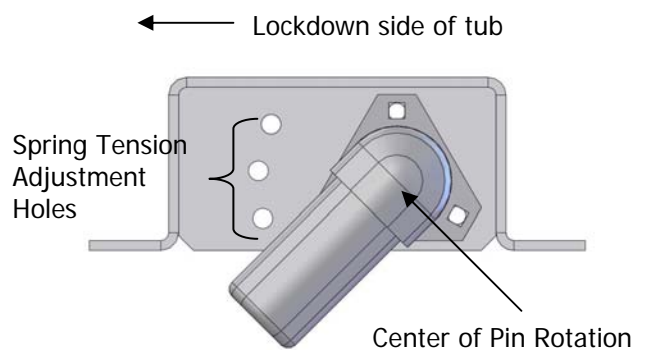


Figure 2 - Rear of Trailer



* **Note:** Mount the brackets and pivots such that the center of rotation of the pivot pin is at the center of the trailer.

Tarp Assembly and Installation

1. Install tarp tube clamps to the tub (the recommended method of attachment is to weld studded plates to the tub with ¼" bolts spaced 1" apart). The clamps should be mounted at least 5" down from the bottom of the rail (see figure 3). The front and rear-most clamps should be located as close to the end of the tarping area as possible (max 6"). The next clamps should be spaced a maximum of 6" away. See figure 4 for an illustration of front and rear clamp spacing. All remaining provided clamps should be spaced evenly apart (see figure 5). If you have or were provided with integrated tarp tube clamps/center supports, distribute them evenly to support the tarp and axle weight (see figure 5).

Figure 3 - Clamp Position (Vertical)

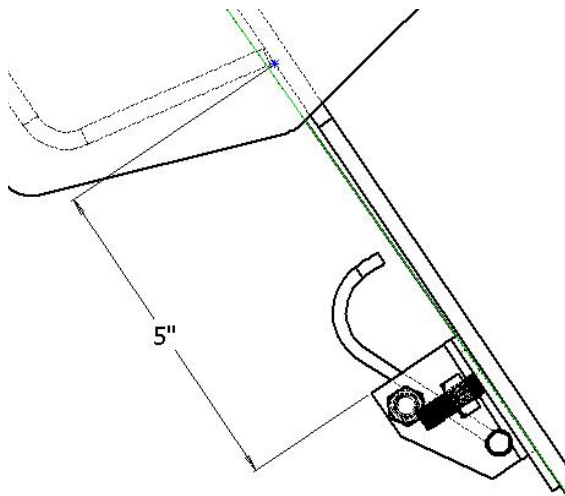


Figure 4 – Front/Rear Clamp Spacing

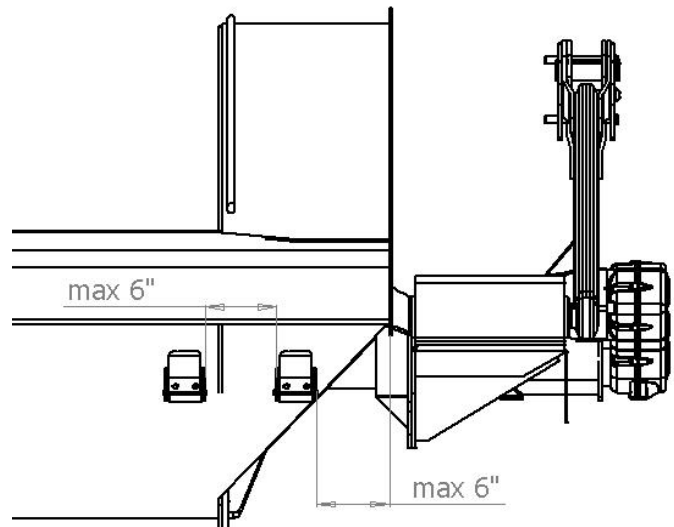
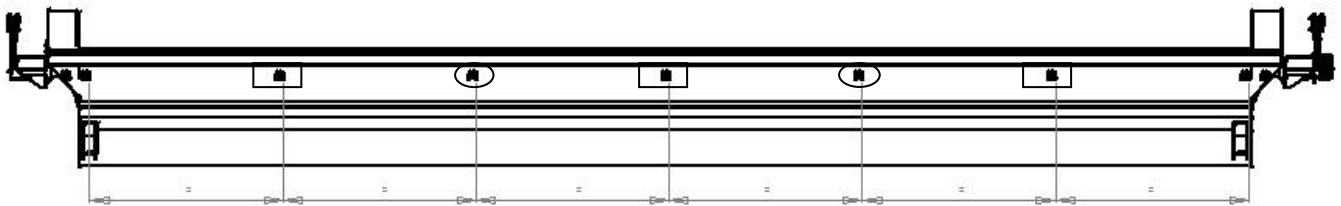


Figure 5 - Equal Clamp Spacing



Note: Distribute center supports evenly (if using 2 integrated supports install at the circled clamp locations, if using 3 integrated supports install at the boxed clamp locations)

- The tarp axle will have to be cut to the correct length. In order to do this, measure from the center of the pivot pin to the bulkhead at each end of the tub. Record these two measurements. Then measure from bulkhead to bulkhead. Total these three measurements and subtract 1/2". This measurement is the required overall length of the axle.

$$\begin{array}{r}
 \underline{\text{Center of Front Pivot Pin to Bulkhead}} + \underline{\text{Center of Rear Pivot Pin to Bulkhead}} + \underline{\text{Bulkhead to Bulkhead}} - \underline{1/2"} = \underline{\text{Axle Length}} \\
 + \quad + \quad + \quad - \quad =
 \end{array}$$

Another way to determine axle length would be to install the arms, measure between the end caps of each arm, and subtract 3/4". If this method is used, the pivot box / arm assembly must be square to the tub.

- Locate the tarp axle sections. Cut the center section so that when the three sections are assembled, the overall length is as calculated above. Assemble and fasten the sections together using rivets or plug welds at the splices.
- Locate the tarp tube (1 1/8" aluminum tubing). Measure the dump body from endcap to endcap. Assemble the tarp tube and cut it to this length. Attach each section together with tack welds or rivets.
- Un-fold the tarp next to the axle (shiny side up).
- Slide the axle into the large pocket on the tarp until the same amount of axle is showing at both ends of the tarp.
- Rotate the axle so that the flat clip groove is positioned toward the end of the pocket (see figure 6).

Figure 6 - Tarp Clip Attachment

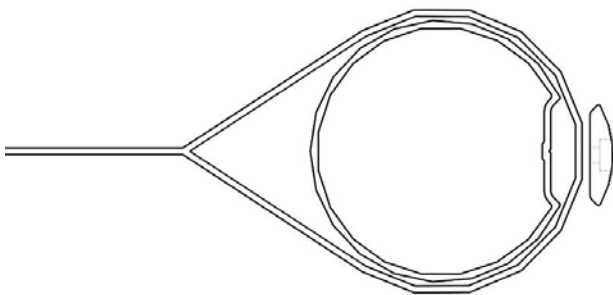
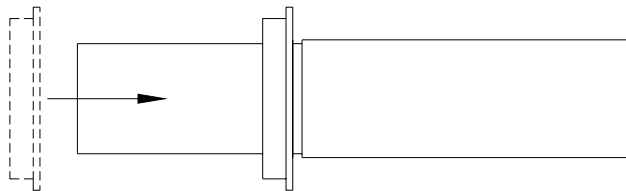


Figure 7 - Tarp Clip



8. Ensure that the tarp is stretched evenly across the axle and fasten each end using the supplied tarp clips (figures 6 & 7) and self-drilling pan head screws. Install the remaining tarp clips evenly along the length of the axle (approx. 36" apart).
9. Slide the tarp rod into the small pocket on the "passenger side" of the tarp.
10. Roll the tarp up starting with the axle.
11. Locate the polymer axle bushings and slide them onto the axle, as shown below in figure 9.

Figure 8 - Polymer Bushing Assembly



12. Locate the bag containing the stub shaft (see figure 8 below), stub shaft bolt and the snap ring.

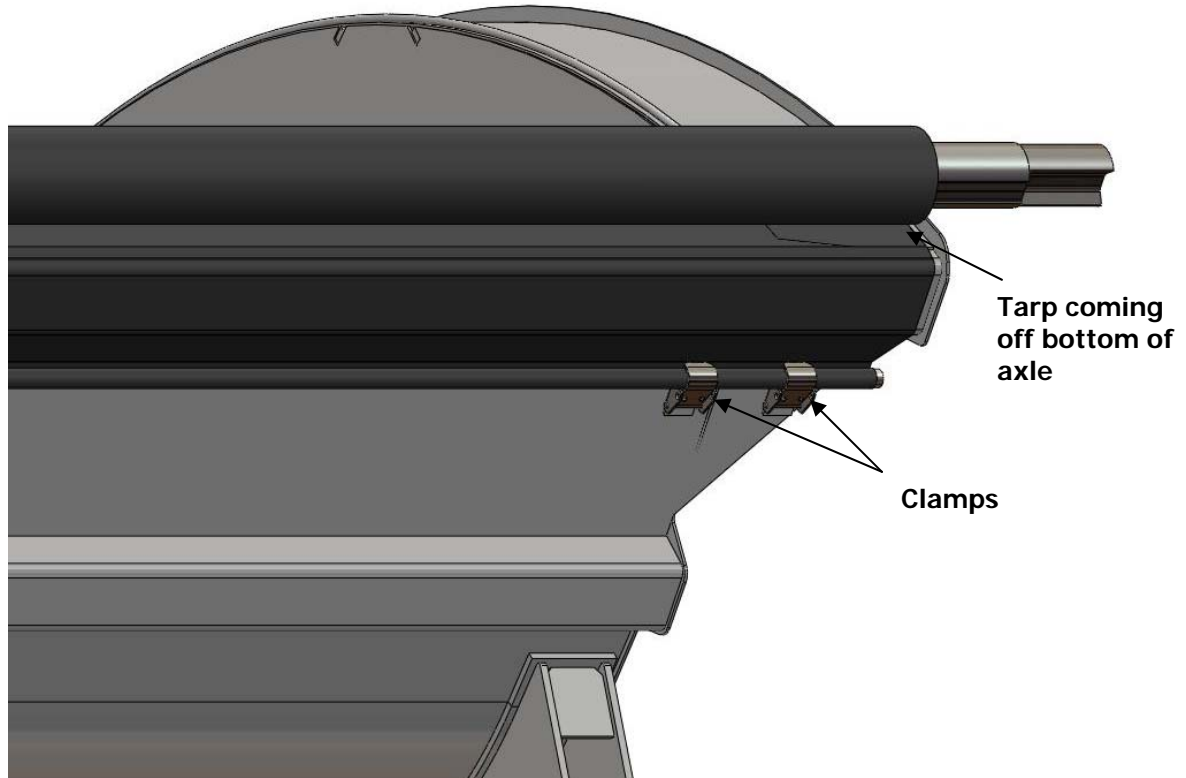
Figure 9 - Stub Shaft



13. Insert the stub shaft into the rear of the axle and fasten it in place using the bolt supplied.

14. Set the tarp on the passenger side of the trailer. Note: the tarp should be coming off of the bottom of the axle (see figure 10).

Figure 10 - Tarp Roll Installation



15. Center the tarp assembly fore/aft on the tub. Lock the tarp rod into the clamps by removing the top bolt from each clamp and rotating the hook over the rod. Replace the top bolt when done (see figure 15).

16. Roll the tarp to the driver's side of the trailer and let the axle hang.

Arm Installation

1. Locate the 2 pre-assembled tarp arms with spring-loaded knuckles. See figures 10 and 11 below for identification of front and rear arms. Note: the arms will come pre-assembled with the knuckles pre-tensioned from the factory. The spring tension and clevis pin locations are application specific. Any modifications to these settings can have a significant impact on system performance.

Figure 11 - Front Arm



As viewed from front of trailer

Figure 12 - Rear Arm



As viewed from rear of trailer

2. Remove the 3/8" diameter bolt that is in the motor output shaft.
3. Install the Motor to the front arm using all 6 supplied mounting bolts. Refer to the motor mounting template for the correct torque specification.
4. Install the 3/4" bearing to the rear arm using the supplied mounting bolts. Do not tighten at this time.
5. Install the arms to the axle. Make sure that the bushings are completely seated into the aluminum casting that is welded to each arm.
6. Bolt the motor to the adapter using the bolt that was removed in step 2.
7. Install the snap ring to the snap ring groove on the stub shaft to secure the rear arm.
8. Install the arms on to their corresponding pivot pins and tighten the two set screws in each arm.
9. Tighten all mounting and bearing bolts.

Wiring the System

Refer to the wiring diagram contained in the wiring kit.

Installing the Center Support Brackets

Skip this step if the center support brackets are integrated to the tarp clips.

1. Wind the tarp until it is tight against the passenger side of the trailer.
2. Determine the vertical location of the center support brackets on the passenger side (the support brackets will keep the axle from sagging and bouncing if the trailer is moving while the tarp is in the open position).
3. Space evenly along the trailer and weld the braces in place.