



Automated Covering Systems

Roll Rite, LLC and its entire staff would like to not only Thank You but congratulate you on your purchase of one of what we feel to be the finest line of tarping systems in the industry.

Side Dump Tarp System

Driver or Passenger Stowing

Non-Sealed applications

RR# 102317

Questions? Contact Customer Service @ 800-297-9905

Or

Parts Diagrams see "Parts and Diagrams" section on web at www.rollrite.com

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Installation Instructions

Mounting the Pivots

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., refer to fig. 1 for bracket specifications.

Note: If the mounting brackets are not manufactured by Roll-Rite Corp., make sure that the pivot pin is off-set 3 inches from the center towards the passenger side of the trailer.

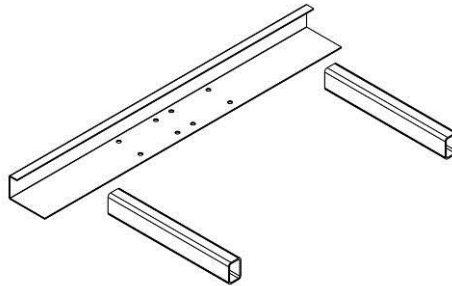


Figure 1

2. Weld the mounting legs 23" down from the top edge of the trailer. If you are using Roll-Rite brackets, make sure that the legs are not more than 48 inches apart and make sure that they do not interfere with the rotation of the cylinders. Refer to fig. 2. (The center of the pivot pin will be 29-5/8" from the top of the tub.)
3. Center the mounting brackets on the front and back of the tub and weld them to the legs that were attached earlier. Refer to fig. 2.

Front of Trailer
(Motor End)

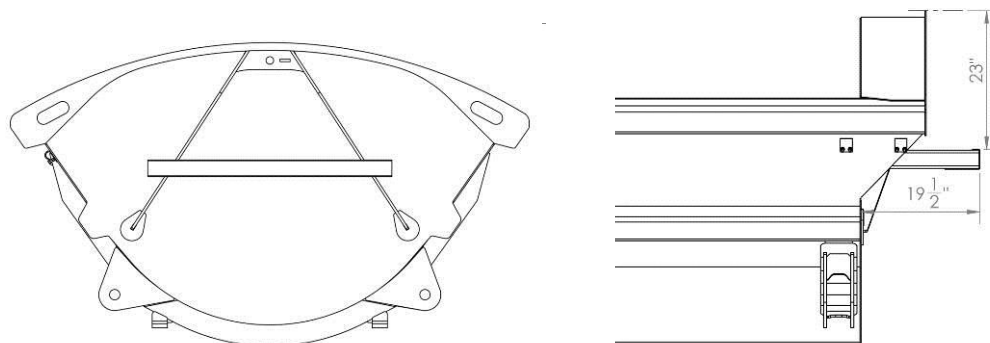


Figure 2

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4. Locate the 2 pivot boxes that you received with the system. Mount the pivot box labeled "Side to Side Pivot Box Front" to the front mounting bracket and the box labeled "Side to Side Pivot Box Rear" to the rear-mounting bracket. If you are mounting your system so that it stows on the driver side then you will need to switch the pivot boxes to the opposite ends. The mounting brackets have 2 sets of pre-punched holes for mounting the boxes making them universal front and rear.
 - a. For Passenger Stowing System - **Use the set of holes that is closest to the curb/passenger side of the trailer.**
 - b. For Driver Stowing System – **Use the set of holes that is closest to the road / driver side of the trailer.**

Mounting the Arms

Locate the 2-tarp arms with spring-loaded knuckles. Notice that one arm has a bearing and one has a stabilizer housing welded to it.

1. Attach the arm **without** the bearing mounted on it to the pivot box that is mounted on the front of the trailer, for passenger stowing systems see Figure 3 and for driver stowing systems see Figure 4. The flat surface of the motor/bearing plate should be facing away from the tub. Do the same for the rear of the trailer using the arm that has the bearing. Once in place, tighten the set bolts.

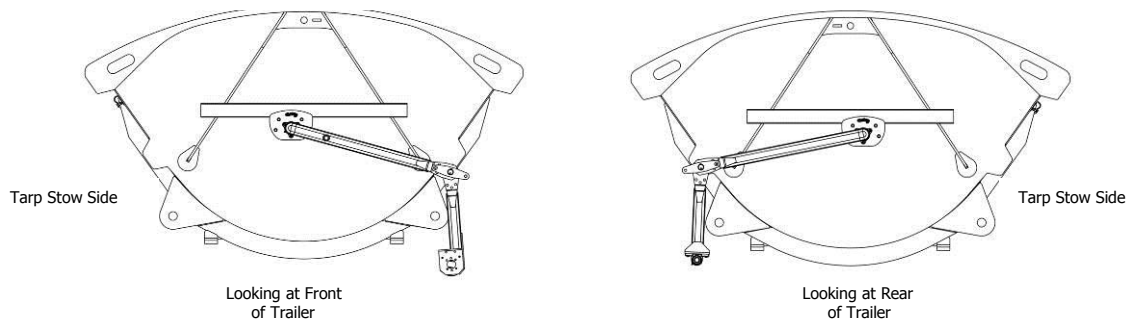


Figure 3

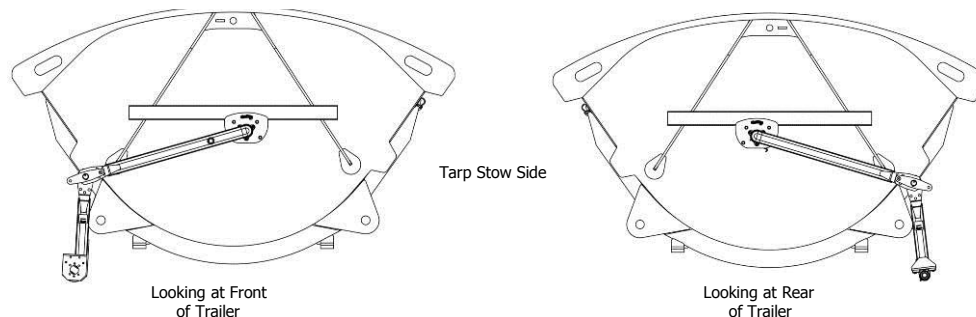


Figure 4

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2. Locate the arm clevis pins and pre-load the knuckle arms by inserting the shorter clevis pin through the center hole in the base of the upper arm and then rotating the upper sections of the arms and placing the longer clevis pin as shown in fig. 5.

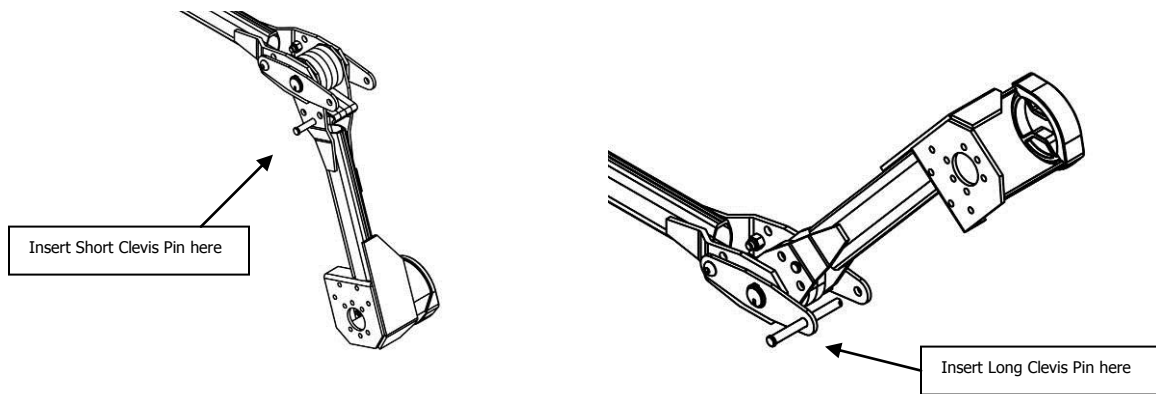


Figure 5

Mounting the Tarp Securing Hardware

Tarp Hardware

The Tarp Hardware consists of 3 components; Tarp Tube Clamps, Tarp Spool Hooks and Center Axle Supports. The clamps and the spool hooks can be mounted at this time. Refer to figure 5 below for the part description.

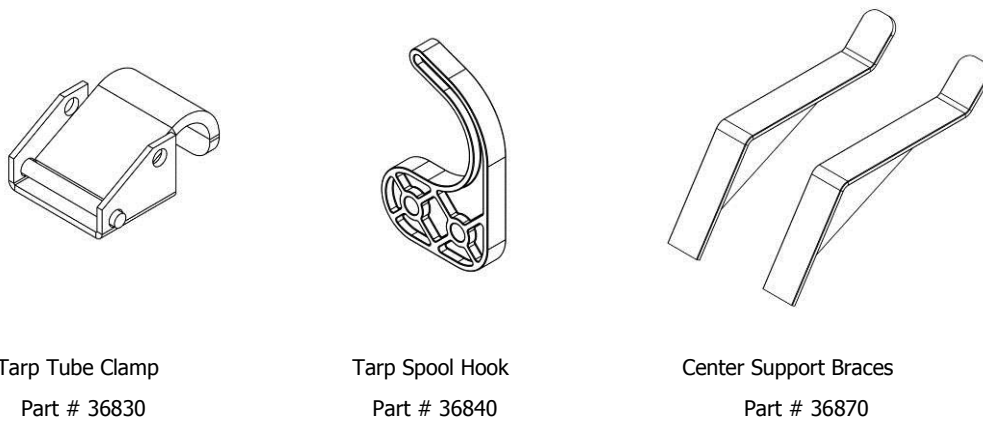
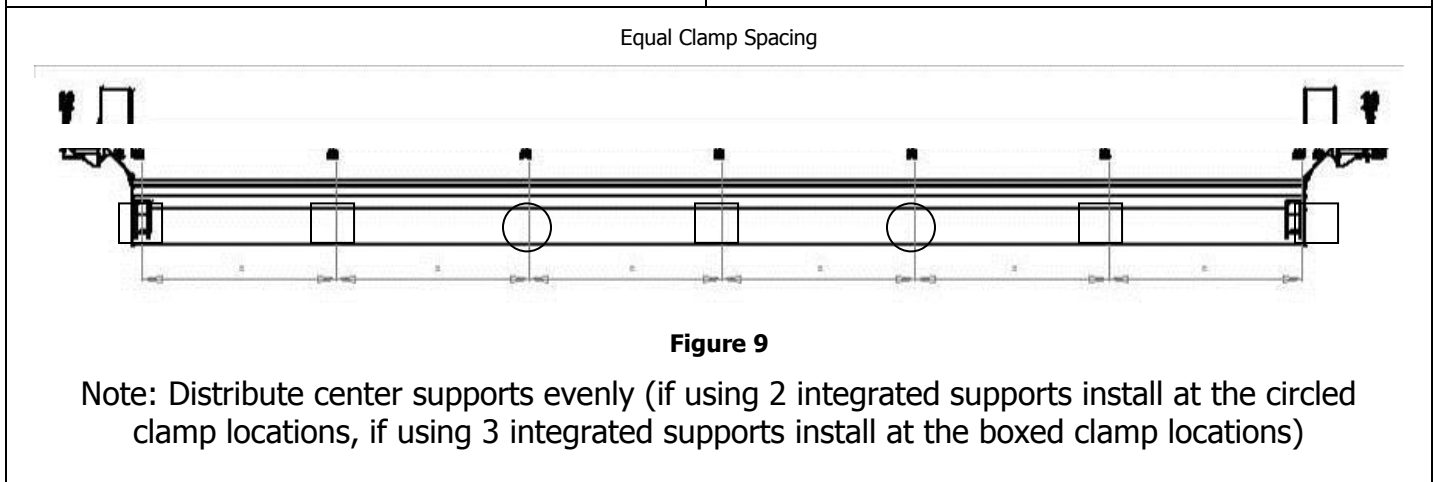
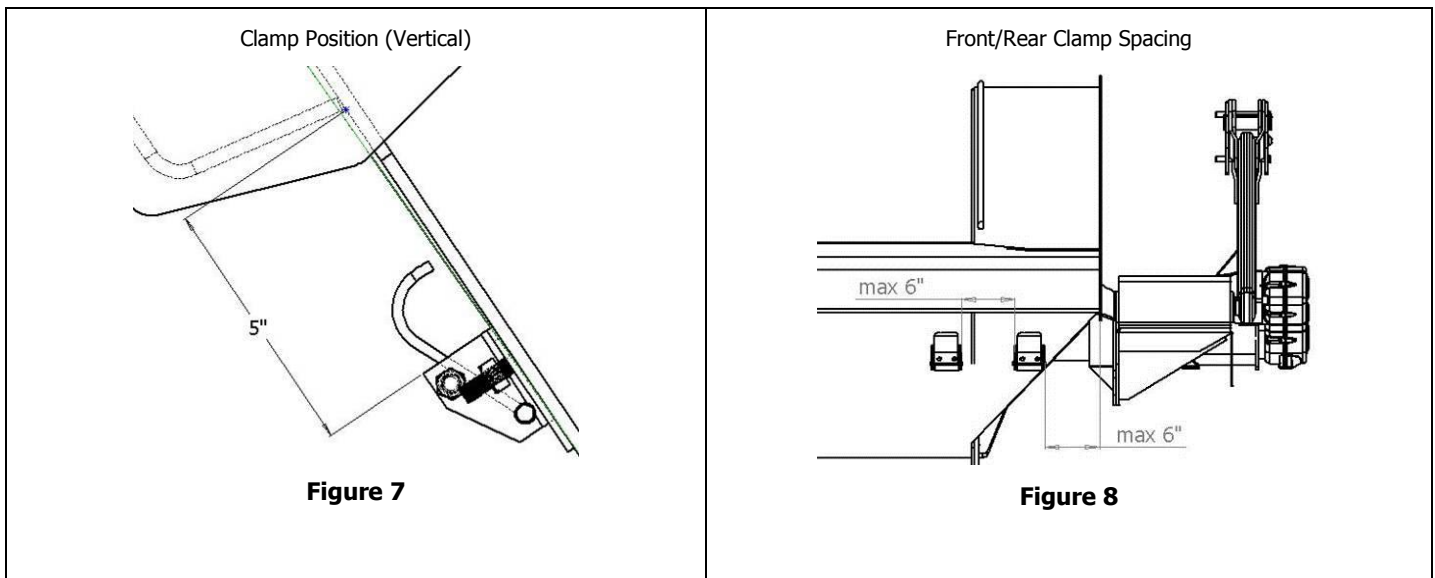


Figure 6

Installation of Tarp Clamps

1. Install tarp tube clamps to the tub (the recommended method of attachment is to weld studded plates to the tub with $\frac{1}{4}$ " bolts spaced 1" apart). The clamps should be mounted at least 5" down from the bottom of the rail (see figure 7). 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 8 for an illustration of front and rear clamp spacing. All remaining provided clamps should be spaced evenly apart (see figure 9). 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 9).



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Assembling Tarp Axle and Mounting the Tarp

Note: The tarp axle, as shipped, is roughly 50" longer than the inside length of the trailer (from inside the front end cap to the inside of the rear end cap). This will compensate for the end caps and pivot boxes.

1. The tarp axle will need to be cut to the proper length. To do so, take a measurement from the inside of the front motor plate to the inside of the rear bearing. Subtract 1" from that measurement. That is the length that your axle needs to be, so remember that measurement. To get that same measurement, you may also measure from the outside of the front pivot pin to the outside of the rear pivot pin and subtract 1".
2. Lay out the three axle pieces as shown below in figure 12 and make sure the clip groove is lined up all the way down the axle.

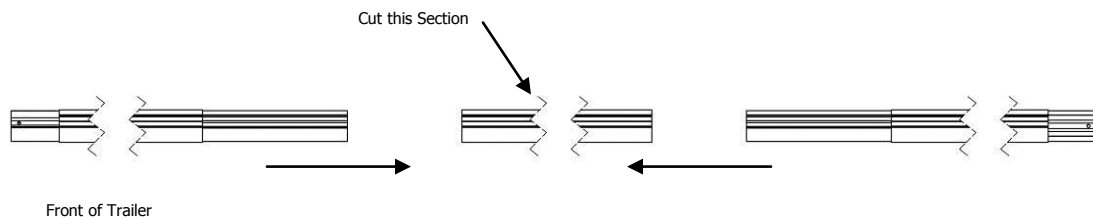


Figure 10

3. Slide the three axle pieces together and take a measurement. As shown above in figure 11. Measure the axle; subtract the # determined in step 1. This will give you the amount you will need to cut off the center section of pipe.
4. Separate the axle sections and cut the appropriate amount from the center section of the axle. Reassemble and make sure that the overall measurement is the same as you determined in step 1 of the tarp and tarp axle assembly.
5. To secure the axle pieces together, drill thru one axle piece into the splice of another, approximately 10 inches from the end. We recommend using heavy-duty rivets because they have a smooth head and will not wear the tarp. You can also use flat head screws or plug weld the mating axle to the splice.
6. Un-fold the tarp next to the axle laying it on the floor as it will go on the trailer (if the tarp has a center reinforcement it should be on the bottom.)
7. Slide the axle into the large pocket in the tarp until you have approximately the same amount of axle showing on both sides of the tarp. (Do not attach the tarp to the axle at this time.)

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8. Locate the tarp rod. (1-1/8" aluminum tubing) Slide it together end to end and fasten it the same as you did with the axle.
9. Slide the tarp rod into the smaller pocket in the tarp.
10. Roll the tarp up starting with the axle.
11. Locate the bag containing the stub shaft, stub shaft bolt and the snap ring. Refer to figure 13 below.

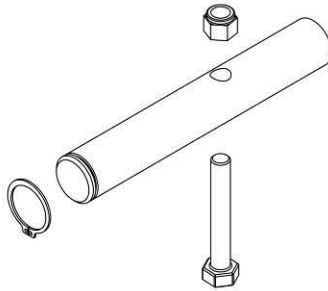


Figure 11

12. Insert the stub shaft into the rear of the axle and fasten it in place using the bolt supplied.
13. Locate the polymer bushings that were taped to the front & rear arms and slide them onto the front & repeat of the axle, as shown below in figure 14.

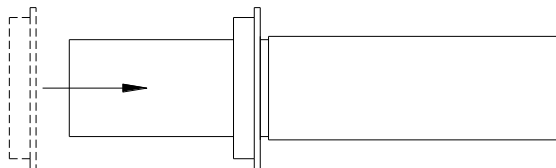


Figure 12

14. Set the assembled tarp axle with tarp on it on top of the trailer toward the side where the tarp tube clamps are mounted. Note: the tarp should be coming off of the bottom of the axle.
15. Lock the tarp rod into the clamps by removing the top bolt from the clamp and rotating the hook over the rod. Replace the top bolt when done.
16. Roll the tarp to the other side of the trailer. The tarp axle should be resting in the tarp spool hooks at this time.

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Mounting the Tarp Axle

1. Remove the 3/8" diameter bolt that is in the motor output shaft.
2. Attach the gear motor to the arm on the front of the trailer. As shown in figure 15.

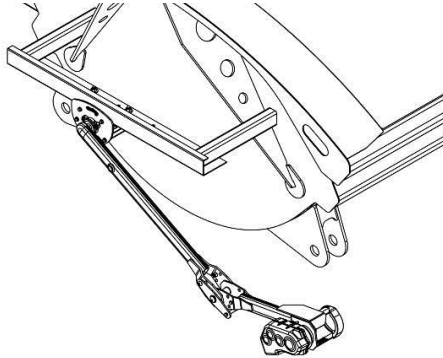


Figure 13

3. Rotate the arm up to the axle and slide the adapter into the housing that is welded to the arm. Refer to figure 16 below.

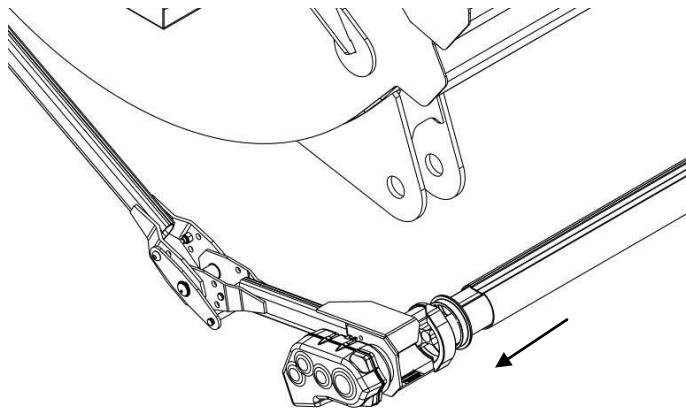


Figure 14

4. Make sure that the bushing is completely seated into the aluminum casting that is welded to the arm.
5. Bolt the motor to the adapter, using the bolt that was removed in step 1.
6. Lift the rear arm until you can insert the stub shaft into the bearing on the arm and install snap ring. The stub shaft is intended to float as needed in the bearing, do not add or tighten setscrews in the bearing.

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Attaching the Tarp to the Tarp Axle

1. Make sure that the tarp is centered on the trailer, which in most cases will allow the tarp to fall just inside the bulkheads. If it is not centered correctly, slide the tarp until it is centered.
2. Locate the tarp clips and screws. Refer to figure 17 below.

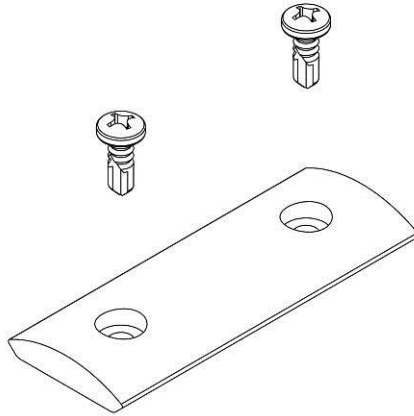


Figure 15

3. Attach a tarp clip, using the self-drilling pan head screws provided, just in front of the hem on the back edge of the tarp.
4. Space the rest out at every 36”.
5. Attach a clip just behind the front hem of the tarp.

Tarp Clip Attachment

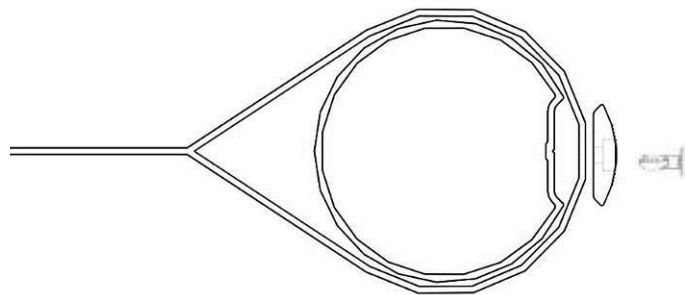


Figure 16

Wiring

System controls may vary based on customer request. Please refer to the wiring diagram that came with your kit.

Mounting Center Support Brackets

1. Wind the tarp until it is tight against the side of the trailer where the tarp tube clamps are mounted.
2. Determine the location of the center support brackets on the driver's side. Refer to Fig 8 on page 5. These will keep the axle from bouncing if the trailer is moving while the tarp is in the open position.
3. Weld the braces in place.

Mounting Tarp Spool Hooks

1. Refer to fig. 17 to attach the tarp spool hooks to the top of the trailer on a passenger stowing tarp system and fig. 18 for a driver stowing system. These will determine where the tarp axle stops when it is deployed.

Back of Trailer
(Bearing End)

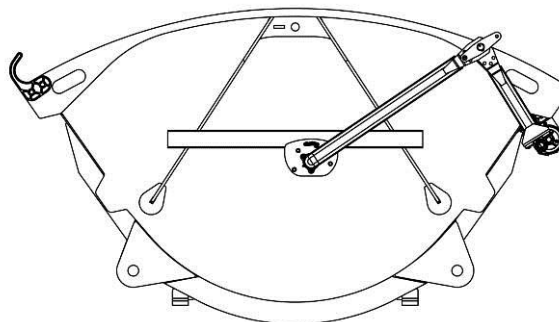


Figure 17

Front of Trailer
(Motor End)

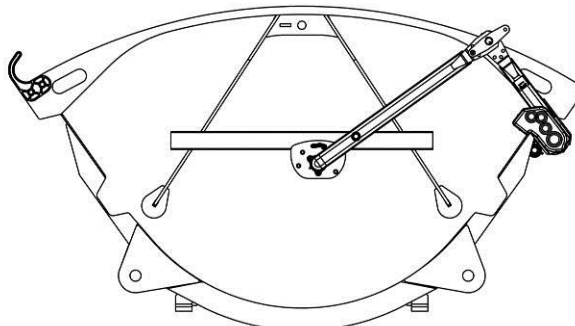


Figure 18

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Mounting Tarp Axle Protection Pads

Using the provided tarp clips and self drilling screws install rubber protection strips around the tarp axle where the axle comes into contact with the top of the trailer at the front and the rear. Align the ends of the protective strips with the groove in the tarp clip recess in the tarp axle (see fig. 19) and install the tarp clip so that it goes down into the recess in the tarp axle as you did installing the tarp - see Fig 16.

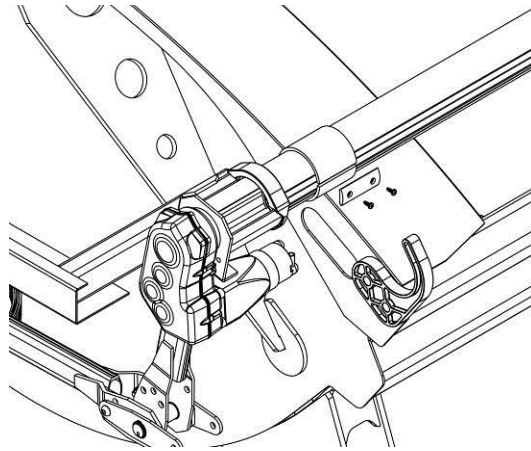


Figure 19

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Trouble Shooting

If the non-powered arm carries the axle across the trailer more than 12 inches off of the bulkhead, you may have to decrease the spring pressure in the knuckle. You can do this by removing the clevis pin from the knuckle and replacing it in a hole clockwise from the original.

If the arms have trouble lifting the axle from under the top rail of the trailer, you can increase the pressure in the knuckle by removing the clevis pin from the knuckle and replacing it in a hole counter-clockwise from the original. If the problem persists, you may have to add gussets to the side of the tub. Refer to figure 19 Note this is representative of a driver stowing system.

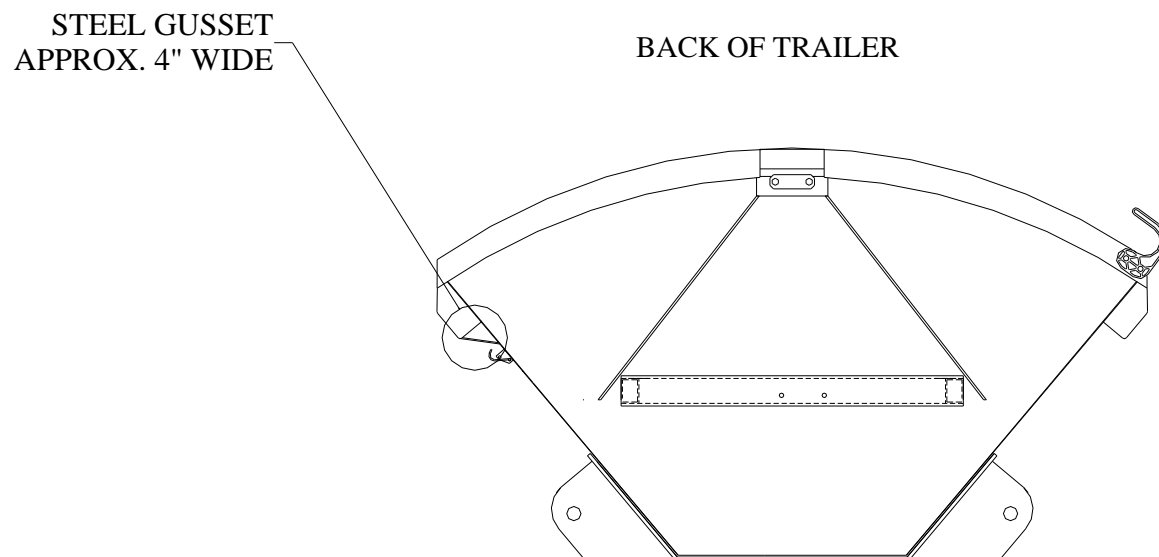


Figure 20

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Operating Manual

Basic Operation

- To cover the load, actuate the switch to the close/cover position. The springs in the arm will move the tarp from the stowed position and across the tub to the tarped position. Release the switch when the tarp and axle are resting in the tarp hooks or under the G-rail depending on your system type. To uncover the load, actuate the switch to the open/uncover position. The Gear motor will wrap the tarp around the tarp axle causing the axle to move from the tarped position to the stowed position. Release the switch/lever when the axle is locked under the G-rail. *Do not hold the switch once the open cycle is complete. Doing so could cause damage to the motor as well as the tarp.*

Safety Notes

- **WARNING: *Do not attempt to dump without uncovering the load!!!!*** Doing so could cause major damage to the tarp system as well as the trailer and tractor.
- **WARNING:** Do not hold the switch once the open/close cycle is complete. Doing so could cause damage to the motor as well as the tarp.
- **WARNING:** The tarp system operates under extreme spring pressure. Do not attempt to repair the tarp system unless the tarp is fully deployed (completely unwrapped from the axle). The fully deployed position is where the springs are at their minimum load. If for some reason the motor must be replaced while the tarp is not fully deployed, the front and rear arms must be secured. To do so, fasten ratchet straps or come-alongs from the upper arms to the side of the tub where the tarp is anchored (typically the passenger side). Tighten each strap or come-along equally until the tarp becomes slack.
- **WARNING:** Be sure that no one is in the immediate area of the tarp system as it operates.

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Maintenance Manual

Roll Rite, LLC designs its tarping systems and power kits to be as maintenance free as possible, contributing to the overall value of the product.

Maintenance intervals vary based on environmental conditions.

Roll Rite, LLC recommends that:

- All electrical connections should be cleaned and greased regularly to prevent corrosion (fill all electrical boots, limit switch boots, etc. with dielectric grease). Electrical connections can be found at all motors, switches, contactors, limit switches, control boxes and batteries.
- All bearings with grease fittings and tower legs must be greased regularly.
- Check and tension all set screws. Set screws should be tightened until they touch and then torque them $\frac{3}{4}$ of a revolution beyond that.
- Check motor mounting bolts and torque to 70 in-lbs (5.8 ft-lbs).
- All mounting hardware should be checked to insure all system components are securely fastened.
- Visually inspect all moving parts for abnormal or excessive wear.

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Once Again Roll Rite, LLC would like to Thank You for your business and offer you not only the finest product in our industry, but the best customer service as well. We would like to invite you to visit our web site at www.rollrite.com, where you can find a complete set of parts diagrams.

Additionally we would love to hear from you if you have any questions or issues:

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