SIDE TO SIDE LOCK DOWN SYSTEMS INSTALLATION GUIDE

For Systems with Bi-Directional Flexible Torque Shaft Cable Assembly

ATTENTION **DURING INSTALLATION, SOME FABRICATION MAY BE REQUIRED.**

Document #: 105870
Revised: 08/11/26 WLH

Table of Contents

Tools & Parts

Recommended Tools 1

Installation Instructions

Front End Cap Installation 3
Locking Lip Installation. 4
Tarp Catch/Stop Installation 5
Pivot Installation 6
Arm Assembly. 7
Tarp Axle and Tarp Assembly 8-10
Multi-Flex Rear Arm Assembly & Installation. 11
Operating Manual. 12
Maintenance Manual 13

Recommended Tools


Safety Glasses and Gloves


Drill Bits 1/4”x 1/2”& 13/64”

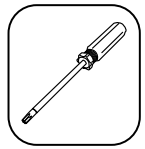

Utility Knife


Tape Measure


Level

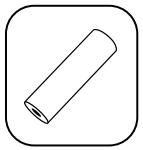

Man Lift


Pliers


T40 Torx Bit


Cordless Drill


Cordless Impact


3/4” Socktes


Allen Wrenches



INSTALLATION INSTRUCTIONS

These instructions illustrate the recommended system configuration (i.e. gear motor at the front of the trailer and tarp spool on the curb side when retracted). Some of the following steps will need to be adjusted if you wish to install the system differently.

Front End Cap Installation

Step 1: Set the end cap on the nose of the trailer (Fig. 1).

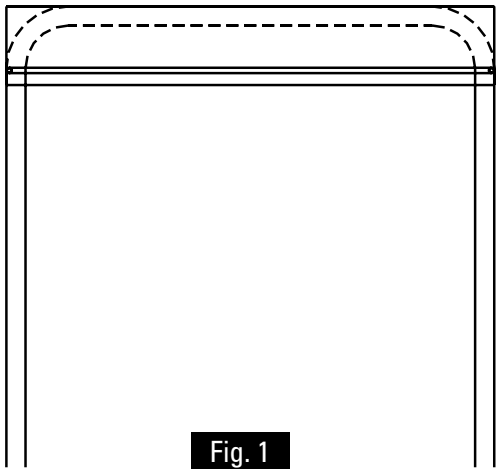
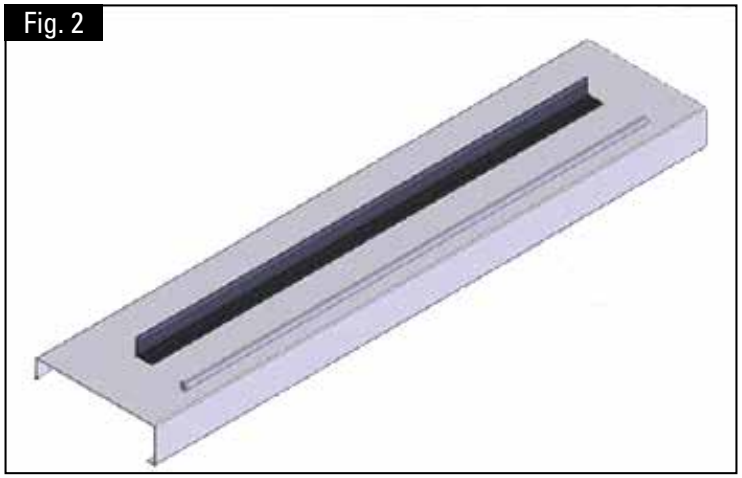


Fig. 1

Fig. 2



Step 2: Trim the cap to match the profile of the front of trailer. **Note:** Trace the shape of the nose onto the bottom of the cap to use as a cutting guideline.
Step 3: Bolt the cap to the trailer using 3- 4 through bolts starting in the center and working outward. Leaving the outside 18-24" floating to allow for trailer flex.
Step 4: Bolt Rubber wind deflector to the cap just ahead of were the tarp will lay on the cap. This will help keep wind from getting under tarp (Fig. 2).

Rear End Cap Installation

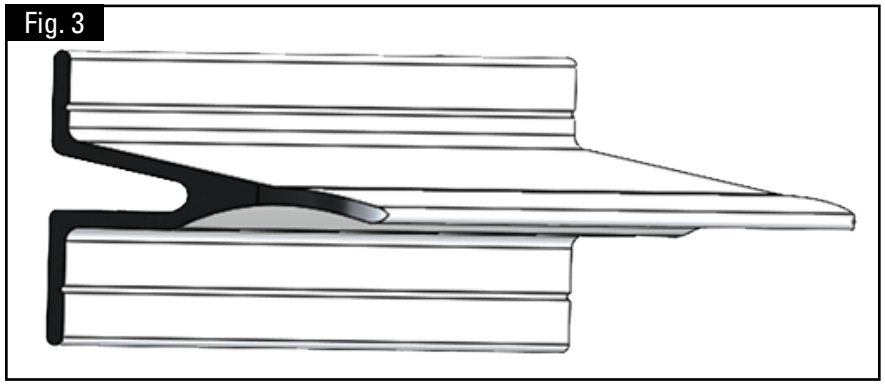
Step 1: When a rear cap is required and you are using one provided by Roll Rite, the edge with the larger bend should be facing forward in the trailer.
Step 2: Notch the bent legs of the cap to allow it to fit between the top rails of the trailer with about ½" clearance on both sides.
Step 3: Using through bolts attach the cap to the rear header in the trailer. If this is not possible use angle iron under the cap to attach it to the top rails of the trailer. Over size the bolt holes to allow the cap to float as needed when the trailer flexes.
Step 4: In some applications it may be necessary trim the entire bent edge off the cap to prevent load from catching one the cap. Each trailer and application is different.

Locking Lip Installation

Note: The locking lips need to be fastened to the driver's side of the trailer if system is uncovering with axle on the passenger side (left side of vehicle when facing forward). If system is uncovering with axle on the driver side then locking lips need to be attached to the passenger side (right side of vehicle when facing forward).

Step 1: Locate the aluminum locking lip extrusions (Fig. 3).

Fig. 3



Front Locking Lip

The front of the first locking lip should be 1-1/2" in front of where the radius ends and 2" down from the top of the trailer.

Rear Locking Lip

a. Measure the length of the tarp that is to be installed on the Trailer.
b. Measure from the location where the front of the tarp is to land to the rear of the trailer and mark out the length of the tarp.
c. Install the rear locking lip so that the rear edge of the lip extends ½" beyond where the tarp will end.

Remaining Locking Lip Sections

a. Do not install remaining locking lip sections until the rest of the tarp system is installed and operational.
b. Cover the trailer and lock the tarp down. It will latch under the front and rear locking lip.
c. Trace a line full length on the trailer along the bottom edge of the tarp axle, while it is in the covered position.
d. Open the tarp and lay out the remaining locking lip sections evenly between the front and rear locking lip.
e. Mount the locking lips 3" above the line drawn on the trailer in step "c." Note these may not be in a level plane as some trailers are slopped or have a slight bow in them.

Tarp Catch/Stop Installation

Step 1: Locate the tarp catch/stop (Fig. 4).

Step 2: Disassemble the tarp catch/stop by removing the snap rings and pins from the bracket and removing catch/stop (Fig. 4 & 5).

Step 3: The front edge of the catch/stop bracket needs to be mounted 2" back from where the radius ends.

Step 4: The back edge of the last bracket needs to be mounted flush with the back edge of the tailgate, make sure that it will not interfere with the tailgate. If the tarp ends short of the tailgate the last catch/stop should be at the back edge of the tarp.

Step 5: Install the tarp catch back into the bracket using the bottom hole to allow the catch to rotate down the side of the trailer, The catch/stop needs to be rotated down to allow the tarp bar to be installed later.

Fig. 4

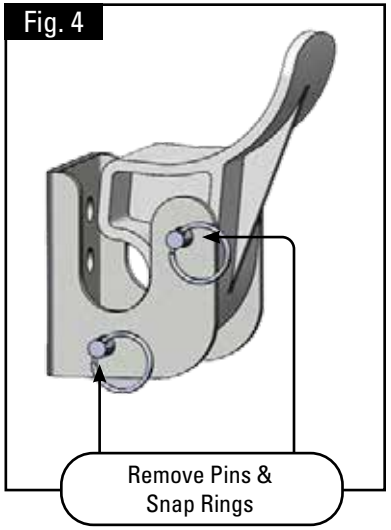


Fig. 5



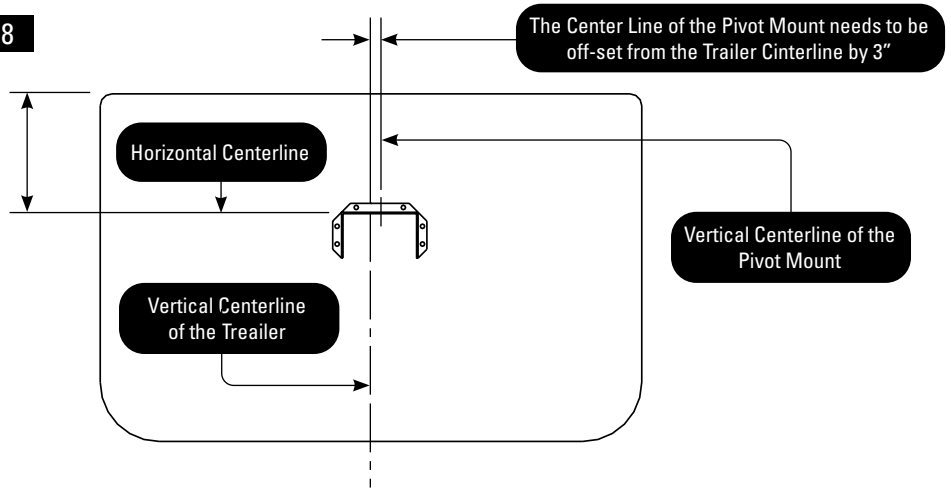
Pivot Installation

Step 1: Locate the pivot mount (Fig. 6 & 7).

Step 2: Measure down from the top of the trailer 24" and put a horizontal mark on the face of the trailer, near the center.

Step 3: The next mark will be the vertical center mark. It will need to be offset from the center of the trailer by 1.25" towards the lock down side (Fig. 8).

Fig. 8



Step 4: Center the mount on the offset vertical line at the same height as the horizontal mark made in Step 3.

Note: The flat portion of the mounting bracket, not the bolt flange, needs to line up with the horizontal mark (Fig. 9).

Step 5: Bolt the mount in place using the ½" x 1- 1/2" bolts supplied.

Step 6: Move Pin to it's lowest position (Fig. 10 & 11).

Step 7: Center the pivot box on the pivot mount and bolt it in place, using the ½" x 1-1/2" bolts supplied (Fig. 12).

Fig. 6

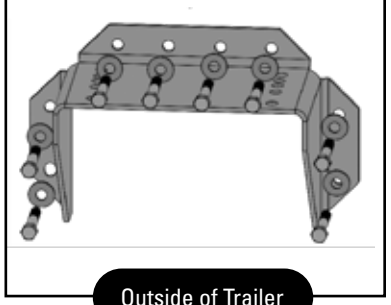


Fig. 7

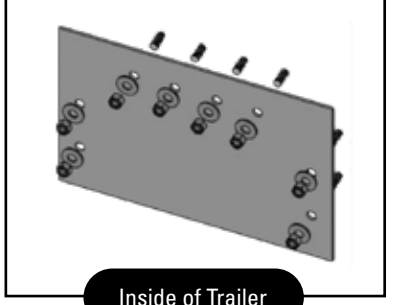


Fig. 9

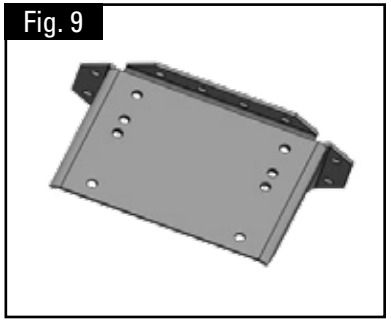


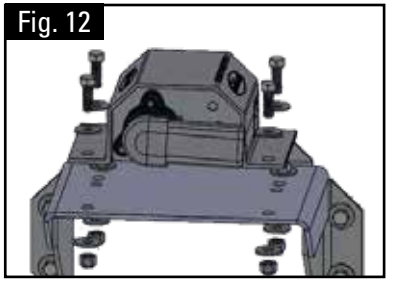
Fig. 10



Fig. 11



Fig. 12



Arm Assembly

Step 1: Locate the knuckle arm assembly. Passenger stowing (Fig. 13) and driver stowing (Fig. 14).

Step 2: Rotate the upper section until you can get the short pin thru under the springs. Refer to step 1 in figure 4 or 5 depending on your system. Once in place install cotter pin.

Fig. 13

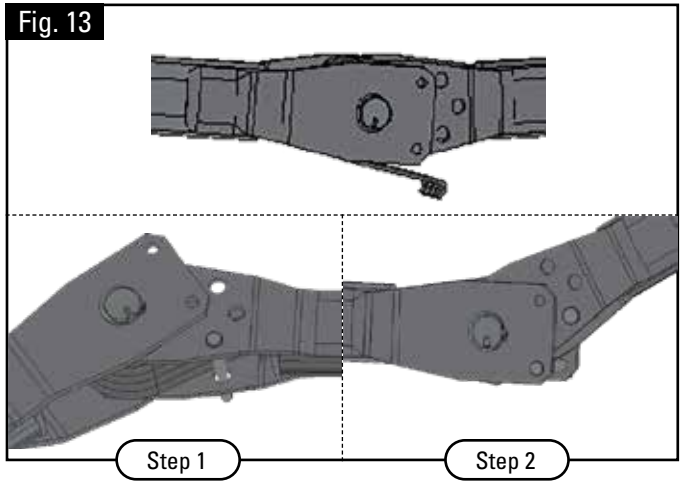
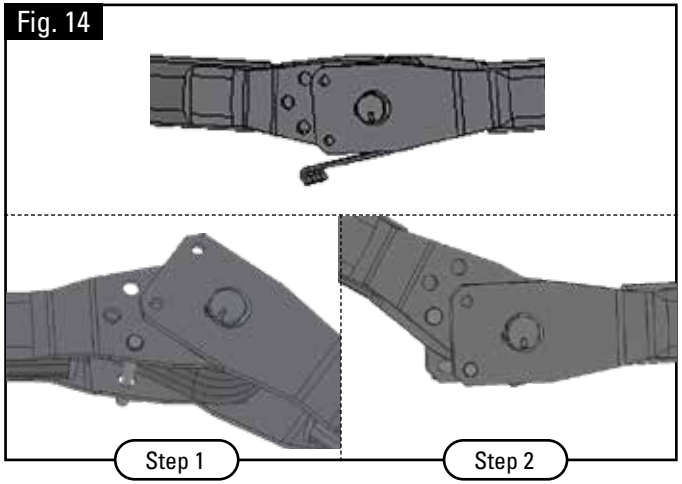


Fig. 14

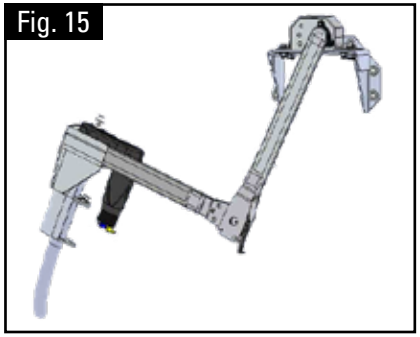


Step 3: Rotate the upper arm against the spring pressure until you can get the long clevis pin thru the holes under the upper pivot tube. Refer to step 2 in figure 13 or 14 depending on your system. Once in place install cotter pin.

Step 4: Slide the arm onto the pivot pin and setscrew it in place. Figure 15 shows what the arm looks like if you are looking at the front of the trailer and have a passenger stowing system, Figure 16 shows what your arm looks like if you are looking at the front of the trailer and have a driver side stowing system.

Step 5: Bolt the motor to the pivot arm as shown.

Fig. 15



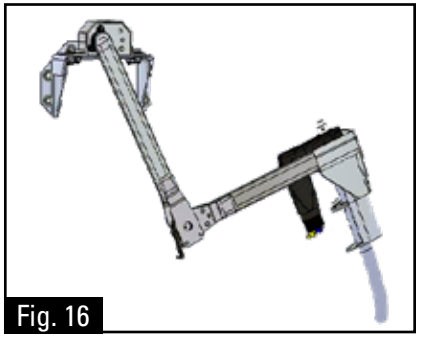
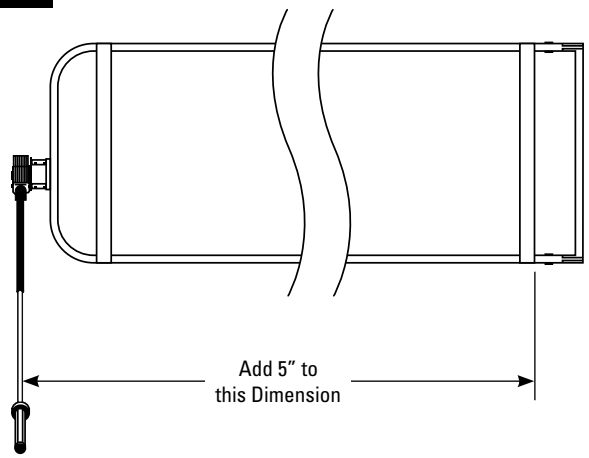


Fig. 16

Tarp Axle and Tarp Assembly

Note: The tarp axle will need to be cut to the proper length. To do so for a single arm system, you need to take a measurement inside of the motor mount to the back edge of the back cap and add 5" (Fig. 17). For a dual arm system with "Multi-Flex" rear arm you will need to measure from the inside of the motor mount to the back edge of the tail gate. Make sure you can get a straight measurement. **Remember that measurement.**

Fig. 17



Step 1: Layout the three axle pieces, as shown in figure 9. Try to get the motor adapter end of the axle pointing toward the front of the trailer. (The motor end will have a "star shaped" plug in it.)

Step 2: Slide the three pieces together. Make sure that the clip groove in the axle lines up in all sections (Fig. 18A - C).

Fig. 18A

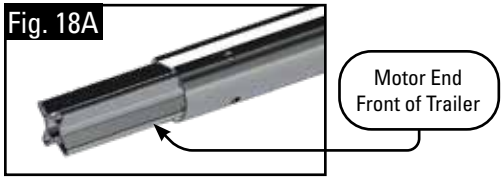


Fig. 18B

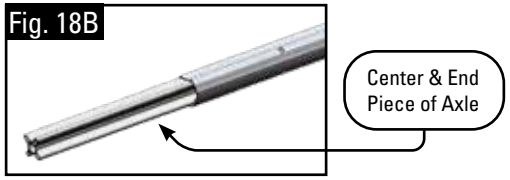
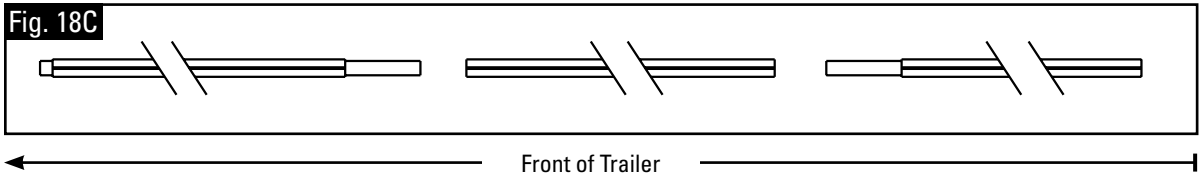
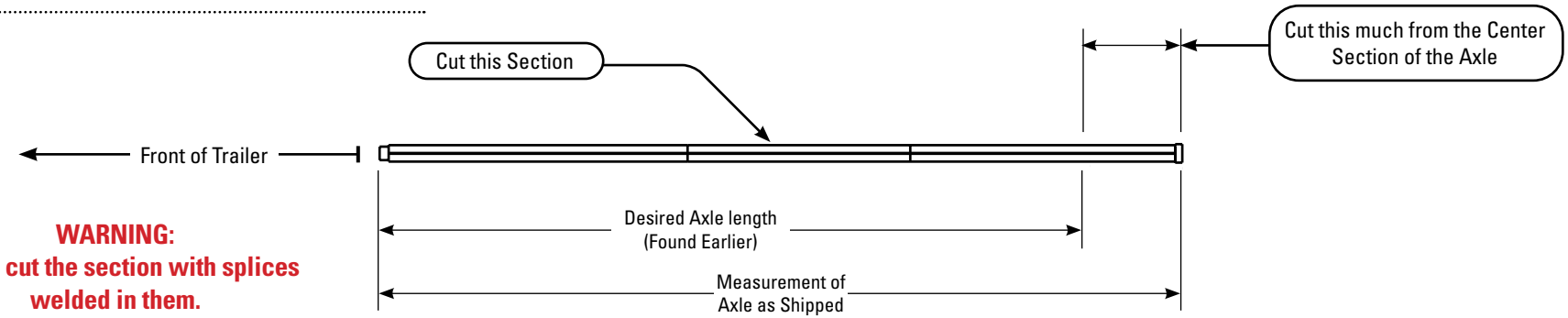


Fig. 18C



Step 3: Measure from the front of the axle, which has the short splice sticking out, to the back of the bungee cap. Subtract the desired axle length, calculated earlier, from the measurement just taken. That is how much you need to cut from the center section of the axle (Fig. 19).

Fig. 19



WARNING:
Do not cut the section with splices welded in them.

Tarp Axle and Tarp Assembly

Step 4: To secure the axle pieces together, drill thru one axle piece into the splice of another (about 10" in from the end of the empty section). We recommend using heavy-duty rivets because they have a smooth head and will not wear on the tarp. You can also use flat head screws.

Step 5: Un-fold the tarp.

Step 6: Starting at the front of the axle, slide the axle into the large pocket in the tarp until the back of the tarp is about 5 - 6" in from the back of the axle for a single arm system and roughly center it for a dual arm system (this typically requires at 2 people, one to slide the tarp onto the axle and the other to feed the tarp). Do not attach the tarp to the axle at this time.

Step 7: Assemble the tarp rod (1-1/8" galvanized steel tube) similar to the axle and rivet or screw the sections together.

Step 8: Slide the tarp rod into the smaller pocket in the tarp. There will be approximately ½" of the rod sticking out from each end of the tarp.

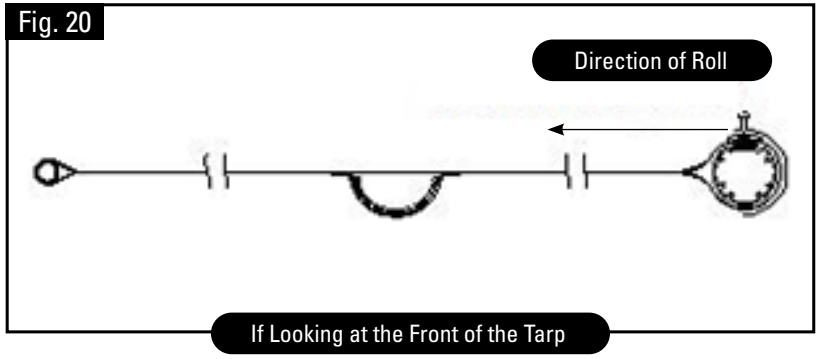
Refer to Figure 20 for proper tarp assembly. Tarp may not have center ridge pole. Note: This is looking at the front of the tarp if system is Passenger stowing and it is looking at the rear of the tarp if the system is driver stowing.

Step 9: Role the tarp up starting with the axle (Fig. 20).

Step 10: Set the tarp on the trailer with the tarp rod setting in the tarp clamps and the motor adaptor splice pointing toward the front of the trailer.

Note: The tarp should be coming off the bottom of the axle.

Fig. 20



Tarp Axle and Tarp Assembly

Step 11: Lock the tarp rod into the hooks by installing the top Clevis Pin & Snap Ring (Fig. 21).

Step 12: Roll the tarp across the trailer allowing it to drop over the lockdown side of the trailer.

Step 13: Center the tarp over the opening to be covered.

Step 14: Locate the tarp clips.

Step 15: Attach tarp clips (Fig. 22) using the self-drilling pan head bolts provided.

Step 16: On each end center and attach a clip over each Hem line. Attach another clip to the tarp directly behind and coincident to each of the centered Hem line clips.

Step 17: Space out the remaining clips in-between equal distance to one another (Fig. 23).

Fig. 21

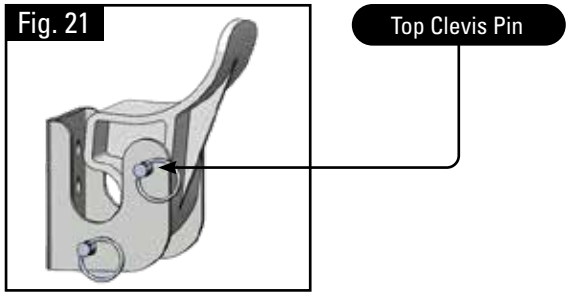
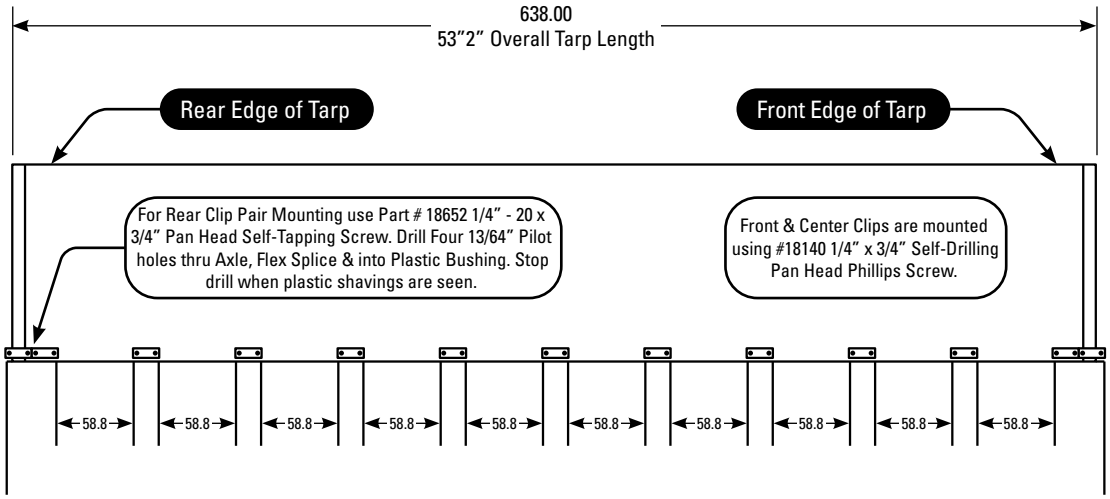


Fig. 22



Fig. 23



Multi-Flex Rear Arm Assembly & Installation

Step 1: Locate the rear Flex arm Components.

Step 2: Assemble as shown below (Fig. 24).

Fig. 24

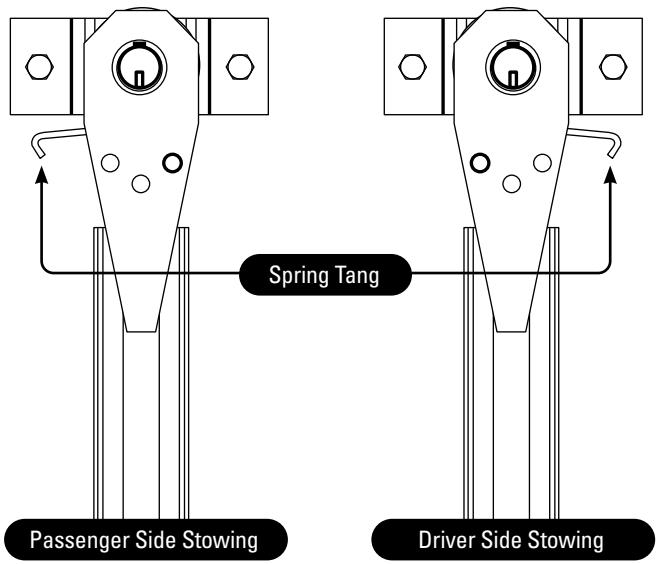
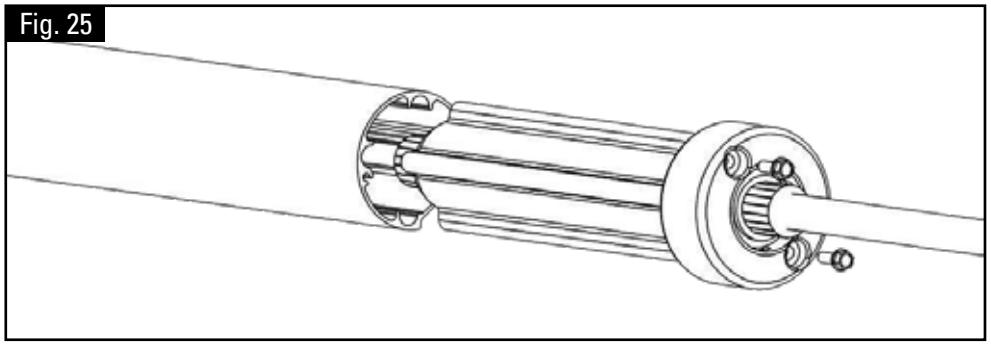


Fig. 25



Step 3: On a standard hinged tailgate or a single piece swing gate the pivot pin for this are should be mounted roughly 44" down from the top of the trailer or arch if there is an arch on the truck. It should be mounted about 42" in from the lock down side of the trailer as well. This arm will compensate for some variation in mounting location. If you have a large rise in a high rise gate or a split swing door, mount the arm closer to the stowed side of the trailer rather then the lock down side.

Step 4: Insert the provided clevis pin through the holes in the arm under the tang of the springs. Typically this goes in the bottom hole, but it can be adjusted to give more spring tension.

Step 5: With the tarp axle hanging on the lockdown side of the trailer. Insert the end of the cable with the axle adapter on it into the back end of the tarp axle until the poly axle cap slides onto the axle and bolt in place (Fig. 25).

Install Splice into Axle (Not Applicable for Hydraulic Systems). Refer to the wiring diagram included with the wiring kit.

Operating Manual

- 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 trailer to the tarped position. Release the switch when the tarp and axle is locked under the locking lip and stops moving. Do not hold the switch once the close cycle is complete. Doing so could cause damage to the motor as well as the tarp.

- 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 resting in the tarp catches. Do not hold the switch once the open cycle is complete. Doing so could cause damage to the motor as well as the tarp. This tarp system can be opened part way and stopped. Anytime you release the switch the tarp system will stop. It will not hurt the tarp system to stop part way through the tarping cycle. Never travel with the tarp in a partially covered position. The trailer should be covered as often as possible when traveling.

Optional arm adjustment:

Different types of loads and conditions may require your tarp to operate differently. Please see the steps below to adjust your arm if need be.

- To make arm carry higher over heaped loads:
  - » Increase the knuckle pressure or reduce the pressure in the base pivot box. Both can be adjusted for better results.

- To make the arm follow the profile of the end caps:
  - » Decrease the knuckle pressure or increase the pressure in the base pivot box. Both can be adjusted for better results.

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 torque all set screws. Set screws should be tightened until they touch and then torque them ¾ 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.